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ABSTRACT

This study examined how Department of Defense (DoD) schools have attained high achievement levels among all students, emphasizing Hispanics and African Americans. Researchers investigated organizational and governmental structures linking the daily operations of DoD schools and districts to policy-setting authorities; the nature and quality of instructional practices in DoD domestic and overseas schools; and social and economic conditions associated with students and their families. Data came from visits to 15 U.S., German, and Japanese middle schools and interviews with administrators, teachers, parents, and DoD staff. DoD schools scored at or near the top of all states in reading and writing on the 1998 National Assessment of Educational Progress. White, African American, and Hispanic students scored well compared to their counterparts in other states, and the racial/ethnic achievement gap was narrower than the gap in other states. The military context of the DoD schools supported student achievement in specific ways. Success rested on a combination of in- and out-of-school factors (a community strategic planning process, alignment of key system components, high expectations, teacher quality, preschool and after-school programs, small school size, and corporate commitment from the military). Appendixes include Overseas Educators School Year 2000-01 Salary Schedule, DDESS (Domestic Dependents Elementary and Secondary Schools) 2000-01 School Year Salary Schedule, and numerous tables and charts displaying statistics relating to the study. (Contains 3 figures, 18 tables, 8 appendixes, and 51 references.) (SM)

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March Toward Excellence:
School Success and Minority Student Achievement in Department of Defense Schools

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September, 2001

A REPORT TO THE **NATIONAL EDUCATION GOALS PANEL**

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Lessons
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NATIONAL EDUCATION GOALS PANEL

The National Education Goals Panel is a bipartisan body of federal and state officials* made up of eight governors, four members of Congress, four state legislators and two members appointed by the president. To learn more about he Goals Panel, please visit http://www.negp.gov.

The eight National Education Goals calls for greater levels of student achievement and citizenship; high school completion; teacher education and professional development; parental participation in the schools; literacy and lifelong learning; and safe, disciplined, and alcohol-and-drug-free schools. The Goals also call for all children to be ready to learn by the time they start school and for U.S. students to be first in the world of mathematics and science achievement.

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A REPORT TO THE **NATIONAL EDUCATION GOALS PANEL**

Lessons
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from THE NATIONAL EDUCATION GOALS

GOAL 3: STUDENT ACHIEVEMENT

"...all students will leave grades 4, 8 and 12, having demonstrated competency in challenging subject matter..."

Objective 1: "The academic performance of all students at the elementary and secondary levels will increase significantly in every quartile, and the distribution of minority students in each quartile will more closely reflect the student population as a whole."

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Contents

Executive Summary i

Goals Panel Policy Highlights and Overview ii

Report Summary viii

INTRODUCTION **1**
- Purpose of the Study 1
- Background Brief on School Achievement 2
- Focus of the Research Study 3
- Methodology 3
- DoDEA System 5

FINDINGS **6**
- **I. Assessment Systems in DoDEA** **6**
  - NAEP 6
  - Terra Nova 9
  - DoDEA Writing Assessment 10
  - Use of Standardized Test Scores: A Summary 11
- **II. Structure and Governance** **13**
  - Leadership at the District and Local Levels 15
  - Summary 17
- **III. Financial Resources** **17**
  - Cost Per Pupil 17
  - Teacher Salaries 18
  - Staffing 19
  - Facilities and Equipment 20
  - Summary of Financial Resources 20
- **IV. Curriculum & Instruction** **20**
  - Teacher Quality 21
    - Teaching Experience and Degrees Attained 21
    - Professional Development 22
    - Commitment and Enthusiasm of Teachers 23
    - High Expectations 24
  - Academic Focus 25
    - Order and Discipline 26
    - Schedules for Learning 26
    - Limited Tracking 27
    - Additional Student Supports 27
    - The Whole Child 27
  - Language Arts Instruction 28
  - Summary 29

V. Social Context, School Community, and Military Commitment 29
  Parent Demographics in the DoDEA System 29
    Education 30
      Enlisted personnel 32
      Officers 32
    Rank & Pay grade 33
    Income 34
  Social Services and Support Systems 36
    Child Care 36
    Health Care 37
  Life on Base and Impact on School Climate: Housing 37
  Life on Base and Impact on School Climate: Safety and Support 39
    Small School Size 40
    Sense of Community & Personal Accountability 42
  On Campus and On Base: Stability Amidst Mobility 43
  Summary 44

Lessons for State and Local Public Education Decisionmakers 45

Appendices

Appendix A 49
Appendix B 50
Appendix C 51
Appendix D 52
Appendix E 53
Appendix F 54
Appendix G 55
Appendix H 56

References 57

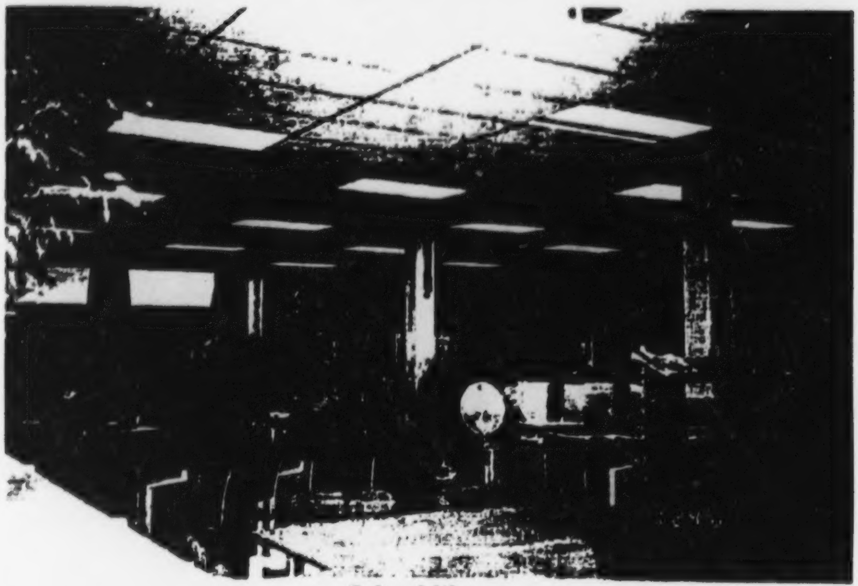
Tables

Table 1. Ranking of DoD minority students on NAEP compared to other states. 1
Table 2. Number of districts, schools, teachers, and students in the DoDEA system. 6
Table 3. Makeup of DoDEA student population by sponsor's service. 6
Table 4. Percentage of 8th graders in top achievement levels on 1998 NAEP in public schools. 7
Table 5. Average 8th grade writing 1998 NAEP scaled scores by race/ethnicity. 8
Table 6. Average 8th Grade Reading 1998 NAEP scaled Scores by race/ethnicity. 8
Table 7. Percent of grade 8 students at or above the Proficient level on 1998 NAEP Writing and Reading by parents' level of education. 9
Table 8. Percent of 8th grade DoD students in top and bottom quarters of the 2000 Terra Nova Tests in Language Arts and Reading. 10
Table 9. Performance level percentages of 2000 DoDEA Writing Assessment of 8th grade students by race/ethnicity. 11
Table 10. Lowest and highest salaries on the 2000-2001 teacher salary schedules for DDESS, DoDDS and Charlotte-Mecklenburg, NC 18
Table 11. Typical staffing pattern for a DoDDS 7th-8th grade school of 600 students. 19
Table 12. Percent of DoDEA teachers by years of experience. 22
Table 13. Percent of DODEA teachers by degree level. 22
Table 14. Percentage of students who rated teacher expectations of student achievement "very positive" on 1998 NAEP reading test. 25
Table 15. Percentage of 8th graders by performance level on DoDEA Writing Assessment. 29
Table 16. Pay Grade Distribution of DoDEA Military Sponsors of Elem-Middle School Ages 33
Table 17. Pay Grade Distribution of DoDEA Military 34
Table 18. Monthly military pay (selective list), by rank 35

Figures

Figure 1. DoDEA Headquarters Organization Relational Chart 14
Figure 2. Education Level of Enlisted Personnel 32
Figure 3. Education Level of Officers 33

Retired army tanks sit near school yard.



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Executive Summary

March Toward Excellence: School Success and Minority Student Achievement in Department of Defense Schools

by Claire Smrekar, James W. Guthrie, Debra E. Owens, Pearl G. Sims

Claire Smrekar, James Guthrie, Debra Owens and Pearl Sims report findings of their year-long study of how Department of Defense schools have achieved high levels of student learning among all students they serve. Both domestic and overseas schools scored at or near the top of all states in reading and writing on the 1998 National Assessment of Educational Progress. Students who are white, African-American and Hispanic each score well compared to their counterparts in other states, and the gap between the performance of white students and that of African-American or Hispanic students was narrower than this gap in other states.

The military context in which Defense Department schools operate was found to be supportive of student achievement in specific ways, but other factors that non-military school systems can incorporate were found to be decisive. The students served were found to have high rates of student mobility (35% of the students change school each year); of poverty (50% of the students qualify for free or reduced price lunch); and of modest parental education (94% of the children of enlisted personnel, who comprise about 80% of the DoDEA school population, have parents with no more than a high school education.)

The study finds that the impressive success of Department of Defense schools in achieving high academic standards rests on a combination of in-school and out-of-school factors. The authors identify important policy implications for state and local education policymakers. They make policy recommendations based on their findings that the factors accounting for high academic achievement include:

- Centralized direction-setting with local decision-making.
- Policy coherence and regular data flow regarding instructional goals, assessments, accountability, and professional training and development.
- Sufficient financial resources linked to instructionally relevant strategic goals.
- Staff development that is job-embedded, intensive, sustained over time, relevant to school improvement goals, and linked to student performance.
- Small school size, conducive to trust, communication and sense of community.
- Academic focus and high expectations for all students.
- Continuity of care for children in high quality pre-schools and after-school programs.
- A "corporate commitment" to public education that is material and symbolic and that is visible and responsive to parents within the school community.

Goals Panel Policy Highlights and Overview

Raising the academic achievement of all students while closing the gap in performance between majority and affluent students and minority and disadvantaged students is the fundamental challenge facing American education today. The National Education Goals Panel believes that examining institutions that are successful in raising achievement and closing the gaps can illuminate effective strategies and tactics and provide guidance to others working to meet the same set of challenges.

The average academic performance of all students in schools operated by the Department of Defense Education Activity (DoDEA) is high, and the performance of African-American and Hispanic students is among the highest in the nation as measured by the National Assessment of Educational Progress (NAEP). Based on the evidence of success found in the NAEP assessment data, the Goals Panel commissioned a research group from Vanderbilt University to examine the high achievement of African-American and Hispanic students in DoDEA schools with the intent of identifying policies and practices that may contribute to that success. The following report is the result of their exploration.

BACKGROUND

Organization

DoDEA schools are organized in two separate but similar systems. Department of Defense Dependent Schools (DoDDS) serve children of military personnel stationed overseas, and Department of Defense Domestic Dependent Elementary and Secondary Schools (DDESS) serve children of personnel stationed in the United States. Families must live on the military base to be eligible to enroll their children in DoDEA schools. DoDEA schools serve approximately 112,000 students, roughly equivalent in size to the Charlotte-Mecklenburg (NC) public schools.

DoDEA is located in the Office of the Deputy Assistant Secretary for Personnel Support, Families and Education within the Office of the Assistant Secretary for Force Management and Policy. Congress functions in a role similar to that of a school board in providing funds for the system through the federal appropriations process.

DoDEA is headed by a Director. The Deputy Director for Europe oversees 8 districts, each with a Superintendent, and 117 schools. The Deputy Director for the Pacific oversees 4 districts, each with a Superintendent, and 39 DoDDS schools and 4 DDESS schools in Guam. The Deputy Director for DDESS/Cuba oversees 12 districts, each with a Superintendent, and 66 DDESS schools and 1 DoDDS school in Cuba.

The Advisory Council on Dependents' Education advises the Secretary of Defense and the DoDEA Director on the maintenance of a quality educational system. Its members are jointly appointed by the Secretaries of Defense and Education and include educators, members of professional associations and unions, parents and a DoDEA student. Area

Advisory Councils advise Deputy Directors on matters in their regions. District Advisory Councils and School Advisory Councils serve similar functions at their respective levels.

Demographics

On average, minority students account for 40% of DoDEA enrollment, approximately the same ratio that is found in the public schools of New York State. Children of enlisted personnel represent 80% of the total enrollment.

Approximately 50% of all DoDEA students qualify for free and reduced price lunch, the common measurement for determining children from low-income households. This is reflective of the generally low pay scales in the military, particularly for personnel in the junior enlisted ranks. Since housing on military bases is segregated by rank, although not by race, and school attendance zones are determined much as they are in U.S. public school systems, the concentration of low-income students can vary significantly from school to school. The research team visited one elementary school where 36% of the students qualified for free or reduced price lunch while in a nearby elementary school 82% of the students qualified.

The nature of military assignments results in frequent moves, resulting in a transiency rate for DoDEA schools of 35%, similar to that experienced in inner city schools. Finally, single parent households account for only 6.2% of all military families, contrasted with a national rate of 27%.

Achievement Results

The study was stimulated by the high performance of DoDEA students on NAEP. For the purposes of this project, the research team focused on the results of the 1998 administration of the NAEP tests in reading and writing, particularly at the 8th grade level. The DoDDS and DDESS regularly participate in state level NAEP assessments, and the results allow comparisons with other participating states.

The overall performance of DoDEA students on the 1998 NAEP reading and writing assessments was impressively high.

- In 8th grade writing, 38% of DDESS students scored at the level of proficient or higher. This was second only to Connecticut and above the national average of 24%.
- 31% of DoDDS students scored at the proficient level or higher on 8th grade writing. This performance was surpasses only by Connecticut, DDESS, and Maine.
- In 8th grade reading, 37% of DDESS students were at the proficient level or higher. These results were third highest in the nation, trailing only Connecticut and Maine and above the national average of 30%.
- 36% of DoDDS students were at the proficient level or higher in 8th grade reading.

In addition to high overall scores, African-American and Hispanic students in DoDEA schools performed at high levels. As the table below shows, these students were either first or second in the nation in 8th grade reading and writing.

NAEP Academic Achievement
By Department of Defense System and by Ethnic Group

	Reading 1998 8th grade	Writing 1998 8th grade
DoDDS African American	1st	2nd
DoDDS Hispanic	2nd	1st
DDESS African American	2nd	1st
DDESS Hispanic	1st	1st

Closing the gaps in performance between minority and white students is one of the important goals of current efforts to improve American education. The NAEP results indicate that DoDEA schools are making important strides in achieving this end. As the table below shows, the gaps in performance on the 1998 NAEP writing assessment are significantly below the national average.

Average 8th Grade Writing 1998 NAEP Scaled Scores by Race/Ethnicity

Race/ Ethnicity	Percent of Total Population	Average Scale Score	Gap White v. Black	Gap White v. Hispanic
DDESS				
White	41	167		
Black	26	150	17	
Hispanic	27	153		14
DoDDS				
White	46	161		
Black	18	148	13	
Hispanic	17	153		8
Nation				
White	65	156		
Black	15	130	26	
Hispanic	14	129		27

The table below shows that similar evidence of gap closing can be found in the 1998 NAEP reading results.

Average 8th Grade Reading1998 NAEP Scaled Scores by race/ethnicity.

Race/ Ethnicity	Percent of Total Population	Average Scale Score	Gap White v. Black	Gap White v. Hispanic
DDESS				
White	42	279		
Black	26	253	26	
Hispanic	27	268		11 *
DoDDS				
White	46	276		
Black	19	259	17	
Hispanic	15	263		13
Nation				
White	66	270		
Black	15	241	29	
Hispanic	14	243		27

* Difference is not statistically significant.

FINDINGS HIGHLIGHTS

The research team identified several factors that appear to be related to the high minority achievement and high overall achievement in DoDEA schools. While it is not possible in a case study such as this to establish a causal relationship between the identified factors and the achievement levels, the research can suggest that these factors may contribute to high student achievement. Furthermore, it is likely that the combination of these factors in a systemic whole is more effective that any single factor in isolation.

Strategic Planning

DoDEA employs a Community Strategic Planning Process to set the objectives of the system and provide the basis for making decisions on educational, organizational, and financial improvements. The process is designed to solicit and incorporate input from key stakeholders—parents, faculty, administrators, support personnel, community leaders, and military personnel.

The 1995-2000 Community Strategic Plan was built around the 8 National Education Goals and two DoDEA goals on accountability and organizational infrastructure. The plan provided clear direction and consistent expectations from the top while preserving flexibility to address unique issues at the school and community levels. This results in the development of a management model that the researchers describe as "mission, money, and measurement from the top, and methods from the bottom."

The process is supported by well-trained and committed leadership at the community and local levels to develop compatible strategic plans. Each site develops a School Improvement Plan that is aligned with the larger plan and defines how each school will reach the objectives laid out in the larger plan. A critical element is attention by district superintendents to performance measures and long term goals that stimulate continuous improvement.

Alignment of Key System Components

DoDEA schools assess every student every with a standardized test. Headquarters provides each district and school with a detailed analysis of student performance, disaggregated by grade level, gender and race. Educators use the school improvement plan process to analyze the data to identify student improvement needs, select student improvement goals tied to the strategic goals, develop additional assessment instruments, identify interventions, and monitor and document changes in student performance.

Assessment results are used to align curriculum and professional development with strategic learning goals. Staff professional development activities are well funded, well executed, and linked with student needs identified by school administrators and faculty. All professional development activities are focused on raising student achievement, and assessments are conducted to measure growth in educator's skills.

High Expectations

High expectations are the norm in DoDEA schools, reflected in high standards, teachers' sense of personal accountability, and very limited use of tracking. The culture of the system was reflected in comments made to the research team by a teacher and superintendent.

> "Your study is looking at why minority students do better. I think the answer to that question is that all our students do better. There are no 'minority' students here." (teacher, DoDEA)
>
> "I think that the school has to accept responsibility to make the difference for kids, not expect the kids to conform to make the difference for us. That is my belief. It is our job to teach the children in the way that will fit the kids best. And no excuses." (superintendent, DoDEA)

The 1998 NAEP reading test included a school climate survey that asked students to rate teacher expectations for student achievement. In DDESS, 81% of the students reported that teacher expectations were "very positive" (the highest ranking), compared to 58% in the national sample. The responses from minority students were even more striking. In DDESS, 85% of African American students and 93% of Hispanic students reported that teacher expectations were "very positive," compared to 52% and 53% respectively in the national sample.

Teacher Quality

Competitive pay scales and access to integrated, extensive professional development opportunities have helped DoDEA to attract high quality teachers and maintain a stable teaching force. Out of field teaching is extremely rare in the DoDEA system.

Child Care

DoDEA schools are linked to an array of nationally recognized pre-school programs and after-school youth service centers. The system includes a Family Child Care component that coordinates in-home care by certified providers. DoD commits to a high level of investment in staffing, training, and facilities.

Small Schools

A growing body of research suggests that small schools (defined as fewer that 350 elementary students, 600 middle school students, and 900 high school students) lead to more productive relationships between teachers and students and a greater focus on achievement and development. Two thirds of the middle schools in the DDESS system are small. Overall a larger proportion of middle and high schools in the DoDEA system are small compared to most state systems.

"Corporate Commitment"

DodEA schools reflect an elevated "corporate commitment" from the U.S. military that is both material and symbolic. This commitment includes an expectation of parent involvement in school- and home-based activities,(e.g., soldiers are instructed that their "place of duty" is at their child's school on parent-teacher conference day, and are relieved of work responsibilities to volunteer at school each month). This commitment to promoting a parental role in education far surpasses the level of investment or involvement found in most mentoring/tutoring models.

Report Summary

This study has two principal findings:

- Department of Defense schools combine in-school instruction with out-of-school activities and community conditions to construct an unusually productive set of educational opportunities for students, particularly minority students.
- Department of Defense schools embrace "productive educational opportunities" that are within the grasp of public school systems to emulate.

Background

The United States Department of Defense (DoD) operates 227 elementary and secondary schools (157 are overseas and 70 are in the United States). These schools enroll approximately 112,000 students.

If all DoD students were in one school district, the DoD system would be about the size of the Charlotte-Mecklenburg (North Carolina) school district.

The DoD system, if it were a state, would have enrollments similar to the state public education systems (K-12) in Wyoming, or North Dakota, or Vermont.

Forty percent of DoD school enrollment is minority (African American and Hispanic). This is approximately the same proportion as the K-12 school system of New York State.

The most unique performance feature of DoD schools is the academic achievement of minority students. However, the performance of all DoD students is outstanding.

DoD Schools' Minority Student and Overall Academic Performance

If the DoD school system were a state, its 1998 National Assessment of Educational Progress (NAEP) reading and writing test results would rank it number one in the nation for minority students.

Minority student achievement aside, DoD schools perform well. When examining NAEP's two highest student performance categories for reading and writing (what NAEP labels "Proficient" and "Advanced"), only one state (Connecticut) ranks ahead of DoD's overseas schools students' achievement and only two states (Connecticut and Maine) rank ahead of DoD domestic schools' student achievement.

These rankings are sustained even when parental education level is considered.

What accounts for these high levels of performance?

DoD schools simultaneously "do the right things," and "do things right." This statement applies both to what happens in schools and to a DoDEA out-of-school environment that reinforces rather than dilutes academic learning.

Some observers contend that the high achievement in DoD schools, particularly for minority students, is a function of the middle class family and community characteristics of such students. As will be seen in the body of this report, such a view is overly simplified. Approximately 80% of all DoDEA students have a DoD parent/military sponsor who is enlisted. Most enlisted personnel have a high school diploma *only* and have income levels at or near the poverty line. Many enlisted personnel and their families do not live in comfortable housing.

What Happens in Schools

DoDEA schools embody the best of what is known regarding productive school management and operation, and they can well serve as a model for the nation's public schools.

DoDEA school operation is a productive blend of both "top down" and "bottom up" management. From the "top" at DoDEA headquarters flows a clear mission, sufficient financing, and regular performance measurement. From the "bottom," local districts and schools are empowered to manage their operations. At the school site, no methods of instruction are mandated. Teachers are given the flexibility to create learning environments within their classrooms.

"Top Down"

Clear Mission. The mission of DoDEA is:

> *"to provide, in military communities worldwide, exemplary education programs that inspire and prepare all students for success in a global environment" (www.odeododea.edu).*

DoDEA promulgates a mission and a vision for high performing schools and imparts a sense of organizational purpose and direction through the use of strategic planning. The 1995-2000 Community Strategic Plan was built around the 8 National Education Goals and two DoDEA goals on accountability and organizational infrastructure. From that point, efforts are made to recruit and empower able individuals as teachers and administrators. This vision is reflected from base to base, from commanding officer to officer. Expectations for excellent schools and high levels of achievement are consistently found throughout the world.

Sufficient Resources. DoD schools appear to be adequately but not lavishly financed. In 1999, DoD schools spent approximately $8,900 per pupil. This is $1,600 (22 percent) higher than the national average. However, DoD per pupil spending is less than what typically is spent in large U.S. school systems with comparable proportions of minority students (NCES, 2000).

DoD system teachers are compensated well. Beginning DoD teacher salaries are slightly higher than their U.S. public school counterparts. Compensation (salary and housing benefits) for overseas DoD teachers and upper end salaries for domestic DoD teachers are the equivalent of their counterparts in large U.S. public school systems. DoD teachers report no shortage of instructional supplies and materials. School facilities are more than sufficient and almost always well maintained.

Powerful and Systematic Measurement. DoDEA headquarters monitors student progress and promotes student success regularly through a systematic reliance upon standardized tests. Curriculum standards are specified by grade and subject area to provide clarity and consistency within the system. DoDEA provides every school and each district with detailed assessment results. These test results are analyzed in multiple ways, including performance by grade level, by gender, and by race.

DoDEA's measurement system provides compelling evidence of the benefits of linking assessment with strategic intervention for school improvement and system-wide reform. DoDEA assessment systems are embedded within a coherent policy structure that links instructional goals with accountability, supported by professional training and development programs.

"Bottom Up"

Empowered Professionals. DoDEA educators in the field are provided with decision-making discretion and operational latitude to shape school and classroom actions in a manner likely to achieve goals and performance targets. Teachers and administrators understand and embrace the system goals and believe that they are sufficiently empowered to accomplish them. DoDEA administrators are proud of the authority they have and speak clearly regarding their intention to maintain such operational freedom.

DoDEA teachers are well educated and committed to the teaching of high academic standards. They are unionized and appear to derive professional pride from the strength of their collective organization. The domestic and overseas unions are involved in decisions at the school, district, and system level.

Rich and Varied Methods. There is no mandated prescriptive method of instruction or school structure. Teachers creatively utilize their talents to construct a positive learning environment for their students. There is extensive and high quality professional development provided to staff. Teachers hold high expectations for all students and vary curriculum based on student needs. New teachers are assimilated into this atmosphere of dedication and excellence.

Schools can vary class schedules and the organization of instruction. Many middle schools are organized by teams and are characterized by an extensive coordination of curricula across the subject areas. In addition to coordinating curriculum, team teachers regularly strategize regarding how to best serve struggling students. Most schools have limited ability grouping or "tracking" and routinely include special education and lower achieving students within the regular classroom.

Discipline plans are created at the school and the district level. Behavioral incidents at school sites are quickly addressed and resolved to maintain a safe school environment. There is broad understanding of the ultimate consequence of an action; a school official may contact the parent's military commanding officer regarding their child's behavior.

What Happens Out of School

A Strong Sense of Community. A strong sense of school community is forged in the base neighborhoods that join military families in a cohesive network of discipline, routine, accountability, and commitment. Military and school staff referred often to the "village" culture of support associated with military base life, in which families closely linked by membership and motivation to "move up in the ranks" develop a sense of shared responsibility for children's safety and well-being. "This is like 'Leave it to Beaver Land', one Marine commander noted, "it's cloistered and it's protected, but it is a shared responsibility."

A culture of support in military neighborhoods permeates school life. Positive outcomes for students stem from a clear sense of shared values among families and teachers. Recent research suggests characteristics associated with "communally organized" schools are found in Catholic schools (Bryk, Lee & Holland, 1993) and in some magnet schools (Smrekar, 1996). We include DoD schools in this category of "communally organized" schools. These schools tend to be structured in ways that facilitate regular and mutually-supportive communication among members and foster social cohesion and commitment to common goals.

Small Schools. A larger proportion of middle schools and high schools in the DoD system have small enrollments compared to most other state systems. This fact stands in start contrast to many urban school districts in the U.S. – the environments in which most minority students attend school (NCES, 1998). In the DoD system, small school size contributes to greater familiarity and personal knowledge of students, their instructional needs and strengths, and their unique family situations.

Recent research on school size effects strongly suggests that lower income and minority students benefit most from smaller middle and high schools (Lee & Smith, 1997). The benefits of smaller schools are linked to the organizational conditions and social processes facilitated by smaller school settings, including a strong and focused curriculum, supportive relationships between school staff and students, and a climate of high expectations and personal attention to students.

Military Commitment to Education and Accountability. One of the most significant factors leading to the educational success of DoDEA students is the value placed upon education and training that permeates the military community, providing the foundation for parental support and reinforcement in ways that benefit children and promote student achievement. The culture of order, discipline, education and training in the military community creates ideal conditions for schools focused upon these principles and expectations.

LESSONS FOR STATE AND LOCAL PUBLIC EDUCATION DECISIONMAKERS

1. CENTRALIZED DIRECTION-SETTING BALANCED WITH LOCAL DECISION MAKING

DoDEA's management strategy merges effective leadership at topmost levels (e.g., establishing systemwide curriculum standards) with school- and district-level discretion in determining day-to-day operations such as instructional practices and personnel decisions.

Policy recommendation:

Our findings suggest that state and local policymakers should utilize a management structure that functions as a "headquarters" for creating a blueprint for expected student learning and academic performance. DoDEA centrally establishes clear directions, goals, and targets without dictating methods for achieving results. This mix of top-down and bottom-up decision making creates local capacity and professional confidence. It also serves as a basis for clear accountability. Principals and teachers know what they are expected to accomplish and are held responsible for achieving those goals. A similar state-level priority setting strategy can serve as a springboard to propel higher academic achievement.

2. POLICY COHERENCE, STRUCTURAL ALIGNMENT, & EFFICIENT FLOW OF DATA

DoD schools reflect a strong and consistent alignment of curricular goals, instructional strategies, teacher supports, and performance assessment results. This is particularly evident in the area of writing, a subject area identified by DoDEA as a curricular priority and educational concern over 20 years ago.

Policy recommendation:

DoDEA assessment systems are embedded within a coherent policy structure that links instructional goals with accountability systems supported by professional training and development programs. State and local policymakers can begin by adopting a performance oriented information exchange that is systematic, clear, and comprehensive. States should provide every school and each district with detailed student performance assessment results. Using DoDEA as a model, each school should engage in a school improvement process to analyze student improvement needs and select student improvement goals. In DoDEA, student outcomes are specifically tied to downstream performance improvement goals. Staff training and curricular intervention are coordinated with a school's individual improvement plan. The ability and disposition to notice and act on instructional problems, and to deploy resources to solve problems are critical elements of school improvement (Cohen & Ball, 1999).

3. SUFFICIENT FINANCIAL RESOURCES

DoDEA provides a high level of support in terms of district and school staffing, instructional materials, facilities, and technology. The level of support for teachers is generous and well recognized throughout the system.

Policy recommendation:

Money can matter, particularly when financial support is linked to specific, coordinated, and instructionally relevant strategic goals. State and local public education officials must acknowledge the crucial importance of sufficient resources. These resources enhance local capacity and strengthen the local districts' and individual schools' ability to implement school improvement goals. Sufficient resources enable districts to offer competitive salaries that attract and retain high quality teachers. Well maintained facilities, ample physical space, and appropriate instructional equipment can promote higher levels of learning.

4. STAFF DEVELOPMENT

DoDEA professional development is linked to an individual school's pattern of student performance. It is tailored teacher by teacher, carefully structured to enhance a teacher's identified deficiencies, and sustained over time.

Policy recommendation:

Professional development activities should be job-embedded; consistent with an individual school's improvement goals; based upon student needs and teacher interests; modeled, repeated and practiced over a long period of time. Professional training should include regular monitoring by peers or supervisors, sustained support, and regular feedback.

5. SMALL SCHOOLS

DoD schools tend to be small, leading to robust levels of trust, familiarity, effective communication, and a sense of community. Small schools lead to a strong sense of student and family engagement, not anonymity.

Policy recommendation:

Research evidence and successful practice continually reinforce the utility of small schools, particularly in constructing effective education for low income, minority students. A small school is defined as an elementary school with fewer than 350 students, a middle school with fewer than 600, and a high school with an enrollment of 900 or fewer (Education Week, 2000; Lee & Smith, 1997; Wasley et al, 2000). Creating smaller "learning communities" (Carnegie Council on Adolescent Development, 1989) or schools-within-schools (Wasley et al, 2000) may very well facilitate the organizational and social conditions evidenced in DoD schools, and could lead to enduring educational benefits for minority students in civilian schools.

6. ACADEMIC FOCUS AND HIGH EXPECTATIONS FOR ALL

DoD schools emphasize individual student achievement. High expectations are the norm in DoD schools. These high expectations are manifested in the use of elevated standards, teachers' sense of personal accountability, and a proactive approach to educating a highly transient student population. DoD schools do not generally group students by academic ability (i.e. tracking). Educational programs are provided that target lower-achieving students for in-school tutoring and homework assistance after school.

Policy recommendation:

Miles and Darling-Hammond (1997) found that high performing schools reflect a set of common strategies used to improve academic success. States should adopt these strategies, including: 1) a common planning time at each school to cooperatively develop curriculum; 2) a reduced number of specialized programs replaced by an integrated plan to serve students in regular classrooms (e.g., heterogeneous grouping); 3) targeted student groupings designed to meet individual needs and enable personal relationships; 4) modified school schedules to permit more varied and longer blocks of instructional time, and; 5) creatively redesigned roles and work hours for staff to help meet goals. High academic rigor, supported by appropriate professional development, restores a system's focus on high academic performance.

7. CONTINUITY OF CARE FOR CHILDREN

DoD schools are linked to an array of nationally recognized pre-school programs and after-school youth service centers. This "continuity of care" commitment is evidenced by the high level of investment in these top-ranked programs in terms of staffing, training, and facilities. The DoDEA programs are widely recognized as a national model among child care providers in the U.S. in terms of staff training, educational programming, and facilities. The programs meet all standards established by the National Association for the Education of Young Children (NAEYC), the National Association of Family Child Care (NAFCC), and the National School- Age Care Association (NSACA).

Policy recommendation:

State and local policymakers should utilize the DoDEA pre-school and after-school programs (e.g., youth service centers) as model programs that reflect the highest quality standards in the world. Many of these early and "out-of-school" educational activities contribute to enhanced student learning, self-esteem, and achievement.

8. "CORPORATE" COMMITMENT TO PUBLIC EDUCATION

DoD schools reflect an elevated "corporate commitment" from the U.S. military that is both material and symbolic. This commitment includes an expectation of parent involvement in school- and home-based activities (e.g., soldiers are instructed that their "place of duty" is at their child's school on parent-teacher conference day, and are relieved of work responsibilities to volunteer at school each month). This commitment to promoting a parental role in education far surpasses the level of investment or involvement embraced by mentoring/tutoring models found in most business-education partnerships.

Policy recommendation:

States and communities can gain similar levels of corporate commitment for public school students by making more visible the facets of the workplace that limit the ability of employees to participate in school-based activities (particularly the ability of hourly workers). Schools tend to structure school-based activities for traditional, stay-at-home mothers. At the same time, a large number of households include parents who are employed in full-time occupations that provide little flexibility and opportunity for parents to leave work during school hours. As schools begin to rethink the purpose and organization of their parent involvement activities, employers should re-evaluate workplace policies which hinder the kind of parental commitment to educational excellence that organized business groups are demanding in the current debate on the quality of our nation's schools.

INTRODUCTION

> "Your study is looking at why minority students do better. I think the answer to that question is that all our students do better. There are no 'minority' students here." (teacher, DoDEA)

> "If you really want to make a difference, you will attack the problem, and we know how to attack the problem of low achievement." (teacher, DoDEA)

Purpose of the Study

The average academic achievement of all students and of African American and Hispanic students in Department of Defense (DoD) schools is among the highest in the nation on the National Assessment of Educational Progress (NAEP). The performance of minority students in DoD schools in 8th grade reading and writing in 1998 ranked at the top compared to their counterparts in states across the nation (see Table 1).

Policy makers and educators are continually searching for ways to "close the achievement gap" between white and minority students. The success of DoD schools with minority students documented on the National Assessment of Educational Progress made it a natural subject for the Goals Panel's continuing analyses of education practice in successful systems.

The Panel commissioned a research group at Vanderbilt University to explore the high achievement of African American and Hispanic students enrolled in schools operated by the Department of Defense. This report is the result of that exploration.

Table 1. Ranking of DOD minority students on NAEP compared to other states.

	Reading 1998 8th grade	Writing 1998 8th grade
DoDDS[1] African American	1st	2nd
DoDDS Hispanic	2nd	1st
DDESS[2] African American	2nd	1st
DDESS Hispanic	1st	1st

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[1] Department of Defense Dependents Schools (DoDDS) are located overseas.

[2] The Department of Defense Domestic Dependents Elementary and Secondary Schools (DDESS) are located in the U.S.

Background Brief on School Achievement

The debate among scholars continues regarding the degree to which an array of economic, social, cultural, psychological, and institutional factors influences student achievement. Most agree that differences in students' performance on standardized tests are related to a set of school conditions and family characteristics (Alexander & Entwisle, 1996; Jencks & Phillips, 1998; Natriello, McDill & Pallas, 1990). Issues of racial prejudice and social justice are also crucial in this debate, that is, how students are treated within the same school, as are questions related to how students spend their summers, whether or not they attended a "good" pre-school, and, later in their development and educational careers, how they perceive their academic ability.

These issues and concerns create the calculus for a complicated achievement equation. Many critical questions persist regarding how and why school environments (e.g., academic rigor, academic grouping, teacher quality, teacher expectations) and family environments (e.g., family income, level and quality of parental education, occupational status, family size and structure, parents' perceived self-efficacy, parenting style) differentially impact student achievement. Other scholars point to the "structure of inequality" (Wilson, 1998) to argue that social, political, and cultural isolation exclude certain communities from economic mobility and educational opportunity. These factors overwhelm the influence of individual level analyses of schooling and family effects on academic achievement and school success (Traub, 2000). We agree that this issue is complex, controversial and unresolved.

This research project does not attempt to resolve this debate. Rather, this exploratory study is designed to provide a descriptive analysis of one school system — the Department of Defense (DoDEA) schools -- that has demonstrated high minority student achievement and high achievement overall, as measured by the 1998 NAEP. This is not a comparative study, nor do we make any claims of causality about the effects of school environment and family characteristics on student achievement. The study focuses upon a set of system-wide governance structures, school conditions, instructional policies, teacher characteristics, and administrative practices that are related to a school's capacity (Cohen & Ball, 1999 ; Cohen & Spillane, 1992; Corcoran, 1995; Ferguson, 1998) to produce student learning. We also explore school climate to examine whether or not DoD schools reflect the properties of "communally organized" schools that recent research suggests produce higher achievement (Bryk & Driscoll, 1988; Bryk, Lee & Holland, 1993; Coleman & Hoffer, 1987). We include in our analyses a descriptive portrait of the residential environments associated with DoD schools. We explore military pay and rank levels, parents' educational backgrounds, neighborhood (base) housing conditions, and social services in the DoD schools.

We present the findings from this study against the backdrop of relevant research in the field in order to link descriptive data from DoD schools to published research findings on good schools and effective educational practices.

Focus of the Research Study

This report describes the education programs and policies in Department of Defense schools that may help account for high minority achievement. Our report offers lessons for state policy makers and others endeavoring to close the gap in academic achievement among students. Specifically, the study focuses upon the following three areas:

- ***The organizational and governmental structures that link the day-to-day operations of DoD schools and school districts to policy-setting authorities.***

Organizational and governmental structures refer to the distribution of decision making authority between central agendas and individual schools, performance sanctions, formal reporting lines, and monitoring and oversight arrangements with the Department of Defense and Congress.

- ***The nature and quality of instructional practices in DoD domestic and overseas schools.***

Instructional practices refer to conditions such as student learning expectations, curriculum benchmarks, teacher quality, staff professional development, pupil-teacher ratios, instructional materials and supplies, assessment strategies and tools, and overall level of financial resources.

- ***The social and economic conditions associated with students and their families in DoD domestic and overseas schools.***

Social and economic circumstances refer to housing, income, educational backgrounds, educational opportunities and expectations, youth services, child care and other community support services, the sense of community in schools, and the level of commitment by the military command to education and families.

Methodology

This is a descriptive, exploratory study designed to enhance our understanding of the educational environments found in DoD schools located on military installations in the U.S. and overseas. Our research team visited 15 middle schools located in 10 different school districts across the United States, Germany, and Japan (5 domestic districts and 5 overseas districts). Schools selected for this study reflect at least the average minority student enrollment for the DoDDS and DDESS systems. A few schools in the study reflect a higher-than-average minority enrollment. We deliberately selected schools that vary somewhat in size, mobility rates, installation deployment and training patterns, pay and rank composition of parents, and in the percentage of children who are eligible for free and reduced lunch. This selection decision produced a group of schools that reflects the depth, range, and diversity of DoDDS and DDESS schools. Toward that end, our study's sample frame of five DDESS districts includes over half (55%) of all DDESS students and over half (56%) of all DDESS schools.

Approximately 130 interviews were completed over the course of the four month data collection period. We conducted in-depth interviews with the principal and language arts teachers at each school. We probed for information on: a) teaching and learning supports; b) instructional rigor and educational philosophy; c) expectations and educational values of parents and patterns of involvement; and d) out-of-school influences on achievement. Parent leaders, assistant principals, school counselors, and teacher union representatives were interviewed at several (but not all) of the schools.

At each district, military commanders and liaisons, curriculum specialists, assistant superintendents, and the district superintendent were interviewed. Our interest here rests with issues of financial supports, resource allocation, personnel recruitment and selection, teacher quality, accountability, leadership styles, program diversity and academic policy priorities. Military officials were asked specifically about housing patterns, health care facilities, educational backgrounds of military sponsors (school parents), safety concerns, social services, and military operation demands (deployment and training).

The Director of DoDEA and other senior staff at DoDEA's Washington, D.C. headquarters were interviewed to gain insight and information on system-wide program priorities and planning, accountability mechanisms, financing, and curriculum standards.

In addition to interviews, we collected an array of school and district documents, including curriculum guides and benchmark standards, staff development plans, accountability reports, student / family demographic data, school handbooks, and parent newsletters. At each military installation, we collected information on housing, health services, recreation services, and social services on the base. An extensive school and base tour, and multiple classroom observations (e.g., language arts classes, computer classes, industrial drawing), were an essential part of each full day site visit.

To ensure anonymity, we deleted the names of all participants and research sites; only titles, roles, and general regions of the country are used to differentiate participants and sites. We did not conduct any interviews with students. All interviews were scheduled in advance of the research team's visits and were designed to be as unobtrusive as possible. All interviews were audiotaped with the permission of the interview subjects and were transcribed verbatim.

DoDEA System

The U.S. military established elementary, middle, and high schools for the children of service men and women overseas and in the U.S. shortly after World War II. These schools were originally administered by the Service branches. However, responsibility shifted to civilian managers soon after inception (DMDC/Westat, 1997). The schools are organized in two distinct but similar systems: The Department of Defense Dependents Schools (known as DoDDS) overseas, and the Section 6, recently renamed the Department of Defense Domestic Dependent Elementary and Secondary Schools (known as DDESS), in the U.S. (Almost all the DDESS schools are located in the Southeastern United States – see Appendix D). The two systems united under the umbrella Department of Defense Education Activity (DoDEA) in 1994. Military personnel must live on base in order to enroll their dependents in the DDESS system.

Today, the Department of Defense Education Activity (DoDEA) enrolls approximately 112,000 students in schools located in the U.S. (DDESS system) and overseas (DoDDS system). This is about the same number of students enrolled in the Charlotte-Mecklenburg, (NC) school district, with the percent minority population similar to the New York State public schools proportion (average 40% minority). Another approximately 600,000 school age children of U.S. active military personnel attend school in one of the more than 600 civilian public school districts located near military installations in the continental U.S. (Military Family Resource Center, 2001).[3]

In the DDESS (domestic) system, the majority of pupils enrolled in the schools (60%) are affiliated with the U.S. Army. In the DoDDS system, the distribution is different; approximately 35% of all pupils enrolled in the overseas system are affiliated with the Army, with another 32% linked to the Air Force (see Tables 2 and 3). The school districts selected for our study reflect this school population-sponsor-affiliation pattern; that is, most schools in our DDESS sample are Army or Marine sponsor affiliated schools.

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[3] A useful research follow-up to this study would be to compare DDESS student achievement and educational environments to the achievement and environments of their counterparts in civilian public schools located near military installations.

Table 2. Number of districts, schools, teachers, and students in the DoDEA System, 2000-01.

	DoDDS	DDESS	Total
Districts	12	12	24
Schools	157	70	227
Teachers	5,747	3675	9,422
Students	77,912	34,294	112,206

Table 3. Makeup of DoDEA student population by sponsor's service, 2000-01.

Sponsor's Service	DoDDS	DDESS
Army	35%	60%
Navy	14%	10%
Marine Corps	6%	16%
Air Force	32%	7%
National Guard	0%	1%
Civilian	12%	5%

FINDINGS

I. Assessment Systems In DoDEA

> "We get benchmarks and we determine what assessments we want to use. You need a few leaders that are curriculum-minded and change-minded in the school to make it work." (teacher, DoDEA)
>
> "We take three days to assess our kids the way that we hope that teachers are teaching writing. And we love it. We get good scores. We get good results." (teacher, DoDEA)

Our analysis of test scores across multiple assessment systems confirms that students in the Department of Defense schools perform at a high achievement level in reading and writing. The 1998 NAEP scores in reading and writing for *all* students, and for specific sub-groups of students -- African American students and Hispanic students -- are the highest in the nation. In addition to the NAEP scores, the DoD student performance on the Terra Nova Achievement Test and the DoDEA Writing Assessment reflect high overall achievement.

NAEP

The National Assessment of Educational Progress (NAEP) is known as the "Nation's Report Card" and is the only continuing assessment of the nation's students in various subject areas (Pellegrino et al., 1999). Since 1969, periodic assessments have been conducted in reading, mathematics, science, writing, U.S. history, civics, geography, and the arts. The population is sampled for the three types of the NAEP: National NAEP, State NAEP, and Long-term NAEP.

Our study focuses upon the State NAEP data which provides state/jurisdiction comparisons but can not be disaggregated by individual students or schools. However, results of the State NAEP can be disaggregated by subgroups (e.g., race). In 1998, between 40 and 44 jurisdictions voluntarily participated in the State NAEP reading and writing assessment.

NAEP results have been increasingly used by policy makers as indicators of the nation's educational health (Pellegrino et al., 1999). The U.S. Department of Education sponsors the NAEP program and it is administered by the National Center for Education Statistics (NCES). NAEP policy is determined by the nonpartisan, independent National Assessment Governing Board. NAEP has earned the reputation as the nation's best measure of student achievement over time.

The 1998 NAEP scores in reading and writing for DoDEA schools are impressively high (see Table 4). Although this study focuses upon the performance of minority students, the overall NAEP results are worthy of review. Students in DDESS were second in the nation with 38% scoring at or above the proficient level in writing; DoDDS students were tied (with Massachusetts and Texas) for fourth in the nation with 31% scoring at or above the proficient level in writing. This compares favorably to the national rate of 24%. In reading, only three states had a greater percentage of students at or above the proficient level than DDESS (37%) and only five scored above DoDDS (36%). Again, DoD schools are scoring well above the nation.

Table 4. Percentage of 8th graders in top achievement levels on 1998 NAEP in public schools.

Jurisdiction	Writing			Reading		
	Proficient	Advanced	Total	Proficient	Advanced	Total
Connecticut	40	5	45	38	4	42
DDESS	32	6	**38**	31	6	**37**
Maine	30	2	32	38	4	42
DoDDS	30	1	**31**	33	3	**36**
Nation	23	1	24	28	2	30

Black and Hispanic students in DoDEA rank either first or second in the nation for reading and writing (see Table 1). Although achievement gaps exist between white students and minority students in writing, the gaps between Black and White students and Hispanic and White students are far smaller in DoD than the nationwide comparative results in writing (see Table 5). All groups in DoD report higher scaled scores in writing than the national averages. Note: the DDESS system has a much higher percentage of Black students and Hispanic students than the national average.

Table 5. Average 8th grade writing 1998 NAEP scaled scores by race/ethnicity.

Race/ Ethnicity	Percent of Total Population	Average Scale Score	Gap White v. Black	Gap White v. Hispanic
DDESS				
White	41	167		
Black	26	150	17	
Hispanic	27	153		14
DoDDS				
White	46	161		
Black	18	148	13	
Hispanic	17	153		8
Nation				
White	65	156		
Black	15	130	26	
Hispanic	14	129		27

Reading scores for DoDEA students show a similar pattern of above average scores and smaller racial gaps (see Table 6). There is no significant gap in reading between White and Hispanic students in DDESS. However, a gap exists between Black and White students. Again, all reading scaled scores are higher than the national average for comparable groups.

Table 6. Average 8th Grade Reading1998 NAEP Scaled Scores by race/ethnicity.

Race/ Ethnicity	Percent of Total Population	Average Scale Score	Gap White v. Black	Gap White v. Hispanic
DDESS				
White	42	279		
Black	26	253	26	
Hispanic	27	268		11 *
DoDDS				
White	46	276		
Black	19	259	17	
Hispanic	15	263		13
Nation				
White	66	270		
Black	15	241	29	
Hispanic	14	243		27

* Not significantly different.

When a parent's level of education is considered, a greater percentage of students in DoDEA schools are scoring at or above the Proficient level in writing and reading than are students nationwide (see Table 7). Among the category of students with a parent who has "some education after high school," 37% of DDESS students obtained writing scores at or above the proficient level, compared to only 19% of the students in the national sample. In this same category, 40% of DDESS students obtained reading scores at or above the proficient level, compared to 35% of the students in the national sample. This level ("some education after high school") describes the educational backgrounds of the majority of enlisted men and women with children in DoDEA schools; enlisted men and women account for approximately 80% of all DoDEA parents. (See Section IV of this report for a complete description of the educational levels of parents in the DoDEA system.)

Table 7. Percent of grade 8 students at or above the Proficient level on 1998 NAEP Writing and Reading by parents' level of education.

System	Did not finish high school	Graduated from high school	Some education after high school	Graduated from college	Unknown
Writing					
Nation	6 %	18%	19%	33%	3%
DDESS	**	**	37%	39%	**
DoDDS	**	23%	29%	35%	**
Reading	11%	23%	29%	35%	**
Nation	11%	21%	35%	42%	12%
DDESS	**	32%	40%	39%	**
DoDDS	**	23%	39%	43%	18%

** Sample size is insufficient to permit reliable estimate

Terra Nova

The pattern of high- or above- average student achievement with some persistent gaps between white and minority students is reflected in the annual Terra Nova achievement tests administered to DoDEA students (see Table 8). Since the 1997-1998 school year, all DoDEA students in grades 3 through 11 have completed the same test -- the Comprehensive Test of Basic Skills Fifth Edition (CTBS/5) Terra Nova, Multiple Assessment. The Terra Nova is a norm referenced achievement test that is typically administered to all students in a state. Scores are reported by student-, school-, district-, and national-levels. When a system has more than 25% in the top quarter, it is performing above the national quarter.

Table 8. Percent of 8th grade DoD students in top and bottom quarters of the 2000 Terra Nova Tests in Language Arts and Reading.

	All DoD Students		White		African American		Hispanic	
2000 Terra Nova	**% Students Top Quarter**	**% Students Bottom Quarter**	**% Students Top Quarter**	**% Students Bottom Quarter**	**% Students Top Quarter**	**% Students Bottom Quarter**	**% Students Top Quarter**	**% Students Bottom Quarter**
Language Arts	39	7	48	5	26	12	29	8
Reading	32	8	41	5	16	16	22	10

A greater percentage of DoDEA students score in the top quarter of the Terra Nova than the nation as a whole. Thirty-nine percent of all students in DoDEA scored in the top quarter in language arts; 32% of all students scored in the top quarter in reading, while only 7% and 8%, respectively, score in the bottom quarter. In Table 5, the scores for minority students in DoD (subgroups) are compared with the scores for all DoD students, as represented by the quarters established by the total, national sample; we are unable to compare DoD subgroup scores with the national Terra Nova scores, by subgroups.

The 2000 Terra Nova Tests for 8th graders in Language Arts shows that 48% of White students score in the top quarter of the nation, while 26% and 29% of African American and Hispanic, respectively fall into this top quarter. In the bottom quarter, 12% of African Americans and 8% of Hispanics score in this bottom range, while only 5 % of White students score in the lowest quarter. In reading, fewer minority students score in the top quarter and more in the bottom quarter than in language arts. Sixteen percent of African American students and 22% of Hispanic students had a score in the top quarter while 16% African American and 10% Hispanic scored in the bottom quarter.

DoDEA Writing Assessment

In 2000, 74% of the 8th graders scored distinguished or proficient on the DoDEA Writing Assessment (see Table 9). Only 5% were in the lowest category, novice. The DoDEA Writing Assessment is a hand-scored essay that was patterned from the National Writing Project. Each student's writing level is assessed but there are no national norms for this assessment. The percentage of students scoring at each level is aggregated by school, district, and system.

Students across all sub-groups achieve at high levels on the DoDEA Writing Assessment although there are persistent achievement gaps between White students and minority students. Overall, between 67% and 77% of students score at or above the *proficient* level in writing. The DoDEA Writing Assessment results mirror the superior writing performance of DoDEA students on the NAEP Writing exam.

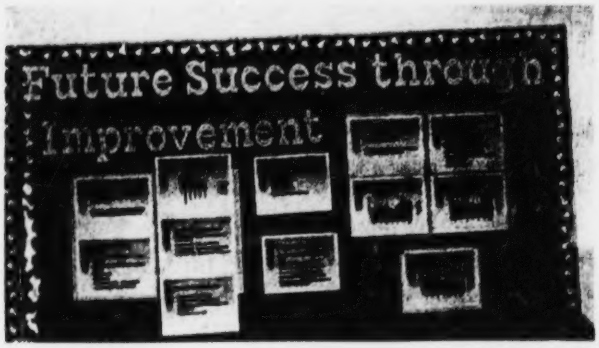
Table 9. Performance level percentages of 2000 DoDEA Writing Assessment of 8th grade students by race/ethnicity.

Performance Level	Percent of All Students	Percent of White Students	Percent of Black Students	Percent of Hispanic Students
Distinguished	33%	38%	25%	27%
Proficient	41%	39%	42%	44%
Apprentice	21%	18%	25%	23%
Novice	5%	5%	8%	6%
Proficient or Above	74%	77%	67%	71%

Use of Standardized Test Scores: A Summary

Studies of accountability systems highlight the focus on student performance (Fuhrman, 1999). Schools, not school districts, are often the unit of improvement with individual school improvement plans. Setting student achievement goals for a school provides a focus for work and increases energy devoted to instruction. Effective educational systems clarify content standards and utilize tests that are consistent with content standards (CORE, 1998). The alignment between standards and assessment in DoD schools reflects these "best practice" principles.

The mission of DoDEA is "to provide, in military communities worldwide, exemplary education programs that inspire and prepare all students for success in a global environment" (http://www.odeododea.edu). Toward this goal, DoDEA monitors student progress and promotes student success regularly through the use of standardized tests. The policy of assessing the achievement of DoDEA students every year through standardized testing is required by law (see: 20 USC 924 and DS Regulation 2000.6). DoDEA outlines three purposes of standardized tests (available at http://www.odeododea.edu):



Hallway display of academic achievement scores

1) To help teachers determine the strengths and needs of students in order to work with them to improve their individual academic skills.
2) To let parents know how their children scored in different academic subjects.
3) To provide accountability for DoDEA schools. The testing information used to help determine how well DoDEA schools work includes norm-referenced tests, which provide a comparison of the basic skills of DoDEA students with the achievements of students in non-DoDEA statewide schools.

Our analysis of DoDEA's testing measures provides compelling evidence of the benefits of linking assessment with strategic intervention for school improvement and system-wide reform. DoDEA assessment systems are embedded within a coherent policy structure that links instructional goals with accountability systems, supported by professional training and development programs.

The process begins with information exchange that is systematic, clear, and comprehensive. First, DoDEA provides every school and each district with detailed assessment results. These test results are analyzed in multiple ways, including performance by grade level, by gender, and by race. Each school utilizes the school improvement plan process to analyze student improvement needs, select student improvement goals, develop assessment instruments such as pre- and post- tests, identify interventions, monitor change in student performance, and document change in student performance. Student outcomes are specifically tied to strategic goals. Staff training and curricular intervention are coordinated with the school site plan. The ability and disposition to notice and act on instructional problems, and to use resources to help solve problems are critical elements of school improvement (Cohen & Ball, 1999). DoDEA exemplifies these school improvement principles.

A vivid illustration of the alignment across curriculum standards, assessment, and training, is the writing program and DoDEA Writing Assessment. Clear standards and expectations for writing performance are outlined in the DoDEA Standards Book for faculty and staff. The DoDEA Writing Assessment reflects the standards of writing performance outlined in the curricular goals. By effectively "teaching to the test," writing instruction embraces the performance standards for good writing evaluated by the DoDEA Writing Assessment. In this sense, the writing assessment becomes the means *and* the ends.

Professional development activities focus upon effective writing instruction and student performance. School and overall district performance levels in writing are reviewed each year by Office of Accountability in DoDEA headquarters.

Threshold levels of achievement are established by DoDEA and districts are held accountable in meeting these established benchmarks (e.g., 75% of all students must perform at or above the Proficient level on the DoDEA Writing Assessment). In the end, if support and intervention do not improve writing achievement, other additional resources and assistance will be provided for schools. Recently, a handful of DoDEA sites, known as Framework Schools, were targeted for intervention and enhanced resources after years of low student achievement. Teachers met to identify problems and develop comprehensive reform proposals, assisted by a DoDEA instructional leader. These teams focused upon a package of resources and training that were essential for school improvement and enhanced student performance. The problem identification process and strategic planning utilized in the Framework School program suggests a bottom-up/top-down linked strategy that produces positive results for students and staff alike.

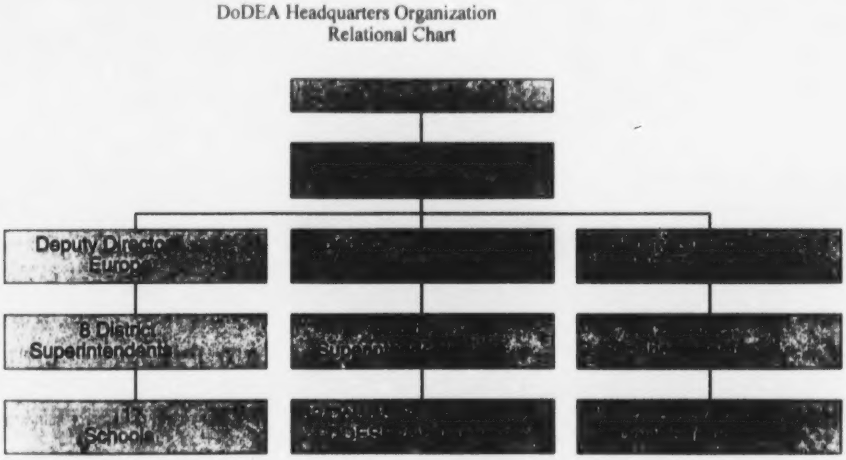
II. Structure and Governance

> "What makes us successful? Our ability to do what is the right thing and this freedom from legislative mandate." (superintendent, DoDEA)

Managing a worldwide school system is complex and challenging. DoD schools are administered by the Department of Defense Education Activity (DoDEA) in the Office of the Deputy Assistant Secretary for Personnel Support, Families, and Education (under the Assistant Secretary for Defense for Force Management and Policy, reporting to the Secretary of Defense). This expansive, federal system extends from DoDEA "headquarters" to the U.S. Congress – which acts as a school board in approving federal appropriations for the system --to the myriad of districts, schools and teachers dispersed throughout the world (Defense Manpower Data Center, 2000). The ability to link the headquarters of the operation with the front lines is achieved in part through a communication system and organizational structure known as the Community Strategic Planning Process. DoDEA uses this strategic planning process to provide a sound foundation for making educational, organizational, and financial improvement. The process is designed to solicit and incorporate stakeholders' (parents, faculty, administrators, support personnel, community leaders, and military personnel) input in all decision making (available at http://www.odedodea.edu).

At the federal level, the Advisory Council on Dependents' Education (ACDE) advises the Secretary of Defense and the DoDEA director on maintaining a quality educational system. Members of the ACDE are jointly appointed by the Secretary of Defense and Secretary of Education, and include school administrators; members of educational associations, institutions, or agencies; members of professional employee organizations or unions; representatives from the military commands; parents; and a DoDEA student. Through the Dependents Education Council, a consultative relationship is promoted between the Assistant Secretary of Defense for Force Management Policy, the Director of DoDEA, and the Commanders of unified combatant commands, major service commands, and the Military Services. The Area Advisory Council advises the area deputy director on matters of concern to a majority of the advisory committee. These matters may include issues elevated from District Advisory Councils or School Advisory Committees (available at http://www.odedodea.edu).

Figure 1. DoDEA Headquarters Organization Relational Chart.



This strategic planning process goes well beyond the mere production of a document to be distributed to the local schools. **Our findings indicate that the strategic planning process has served as a springboard for targeted educational funding and organizational improvements and has been an effective tool to: enhance the teaching and learning process; raise the standard of learning to ensure excellence; create greater autonomy at the local level in designing strategies to meet the achievement goals; develop a common language for communication among all stakeholders; and establish greater accountability in support of reaching the expected outcomes.**

The process is used as a foundation for seeking additional stakeholder input and refining the components addressed in the plan, thereby enhancing an awareness and understanding of the schools. We found strong evidence in our interviews that local school administrators understand and "own" the strategic direction set

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for the system through this process and feel empowered to achieve the identified goals.

Similar to those at the federal level, district- and school-level advisory groups work to assure continued commitment to the strategic direction and outcomes of the schools. The District Advisory Council advises the district superintendent on matters of concern to a majority of the advisory committee. These matters may include issues elevated from School Advisory Committees. The School Advisory Committee is comprised of an equal number of locally elected parents and full-time professional school employees; a senior high school student enrolled in the school may also be a voting member. Each committee advises its school principal on all local school-related matters, including curriculum and instruction, budget, policies, and support functions.

This Community Strategic Plan unifies the direction for both the overseas and the domestic schools, yet provides the flexibility to address unique issues and challenges at the school and community level. Individual schools utilize the School Improvement Plan to communicate how they intend to meet the goals and performance outcomes outlined by DoDEA.

Leadership at the District and Local Levels

> "We kick and scream mightily at anything that looks regulatory in nature, that limits our local ability to make decisions. We'll do what is right, but not because it is regulatory." (superintendent, DoDEA)

> "We don't have state regulators coming in or state requirements. We don't have local county school boards that come in, checking on us. It is incumbent upon the leadership of the system to ensure a good education is being provided for kids. Now who checks that? We have customer satisfaction that is built into the philosophy of the program. So if all customers are not happy, the agency (DoDEA) is very responsive, extremely responsive because we are so tight-knit." (principal, DoDEA)

> "I'm much more accessible to my constituents because I don't have as many (compared to county superintendent). He has more of a political reality. He has a school board." (superintendent, DoDEA)

DoDEA utilized the 1995-2000 Community Strategic Plan (CSP) to raise the education standards and advance the organization to new levels of excellence. DoDEA's plan uses the 8 National Education Goals and two DoDEA goals on

Accountability and Organizational Infrastructure. The process outcomes have provided direction and consistent expectations, and have been a source of great energy for the DoDEA system, compelling them to refine and review the organization's commitment to improving the quality of education for all students.

Perhaps the single most important outcome of the first strategic planning process is the renewed attention that the district superintendents are paying to the development of performance measures and milestones for future years to ensure continued progress toward reaching the goals and objectives. These annual performance goals are beginning to be incorporated into the budget process and the annual DoDEA performance contract. In addition, staffs at all levels are beginning to feel the commitment from "headquarters" to provide the schools with the flexibility to address both system-wide goals and local concerns.

Regardless of how dynamic the process or product of good strategic planning, it is worthless unless accompanied by effective leadership within each school and each district to assure continued focus on student and staff performance. The district superintendents and school principals interviewed consistently displayed a high level of professional expertise. Many described the participatory process they utilize to promote a vision of excellence for all children. Principals model the successful leader, becoming head teacher again, spending time in classrooms ("every classroom every week"), talking with teachers and students. Superintendents described their regular visits to schools and their efforts to coordinate easy access, regular communication, and supportive networks between their district staffs and teachers. Collectively, principals and superintendents in the DoD system tend to set high expectation for all. Their communities see most of them as caring, innovative visionaries with a focus on positive outcomes for children and youth.

The District Superintendent's office is viewed as the diffusion network for highly professional staff development. The District staff work to assure that school personnel have the skills they need to be highly effective classroom instructors. All DoDEA staff development plans include four levels of instruction: (1) Awareness, knowledge, and basic understanding; (2) Skill development, beginning use, and in depth understanding; (3) Application, implementation, and integration of skills into curriculum; and (4) Refinement, institutionalization of practices, real world problems and solutions, and "Train the Trainer" activities. Staff development activities are well funded, well executed, and aligned with needs identified by the school's administrators and faculty. Each professional development activity is centered around helping the teacher raise student achievement. Assessments are conducted to measure growth in the educator's skills. District administrators and school principals regard classroom observation and data collection as essential to the supervision of curriculum implementation efforts by their teachers.

District- and school-level leaders promote a quality educational program in partnership with parents and the military community. Most importantly, the leadership – superintendents and principals and their staffs -- work on a daily basis to understand the unique needs of children in the military family (Martin, 2000).

Summary

The Department of Defense Education Activity has set forth this primary goal for 2001-2006: "All students will meet or exceed challenging standards in academic content so that they are prepared for continuous learning and productive citizenship" (available at http://www.odedodea.edu). In order to achieve this goal, DoDEA will need to maintain alignment across four major functions. These four key functions include: promoting quality instruction; supervising and evaluating this instruction; monitoring student performance; and coordinating school and community resources for the continued high performance by all students (DoDEA, 1999). The 1998 NAEP writing scores are a strong indication that the leadership of the DoDEA school system clearly understands the power of such an organizational alignment.

III. Financial Resources

Financial resources are vital to an effective school system. The DoDEA schools are funded at sufficient levels to implement instructional goals. The cost per pupil is higher than the national average. Teacher salaries are competitive and schools are well staffed. Instruction is enhanced by state-of-the-art equipment and well-maintained facilities.

Costs per Pupil

DoDEA has a higher average per pupil expenditure than the national average; however, these reported figures may be misleading. For 1998-1999 DoDEA reports that the total expenditures per pupil was $8,908. The overseas system has higher expenditures ($9,055) than the domestic system ($8,586). The funding levels for both systems are higher than the national average of $7,290.

These figures are difficult to compare to state average per pupil funding levels, since DoDEA schools do not receive state or federal grant programs, private sector donations or state department of education support. Supplemental federal (e.g., Title I), state or private (e.g., Pew Foundation) funds are not reflected in published national per pupil costs of school districts. Even though DoDEA schools are required to provide certain federal mandates such as special education, DoDEA schools must utilize their existing funding for all of these services.

Another difference between the national average and DoDEA per pupil expenditures is the lack of a state department of education. School districts in the U.S. are under the jurisdiction of a state and obtain various forms of support from state departments of education. This support is not calculated in the per pupil expense of pupil school districts. DoDEA headquarters provides many services to its districts and these costs are added to the per pupil expenditure. When DoDEA district superintendents were interviewed, many reported that DoDEA headquarters provided services similar to state departments of education.

Teacher Salaries

Highly qualified teachers are considered to be vital to the operation of the DoD school system. Thus, maintenance of competitive teacher salaries is a top priority of DoDEA. Administrators believe that DoDEA still has the ability to attract and retain effective teachers, though the employment pool is more limited today than in the past. Salaries are viewed as a means of promoting this practice. The salary schedules of comparable school districts (size, demographics) in the U.S. are reviewed regularly by DoDEA to establish a competitive salary schedule. A goal of the organization is to keep pace with these similarly sized school districts.

The teacher salaries for both DoDDS and DDESS are displayed below in Table 10, with a district of similar size, Charlotte-Mecklenburg in North Carolina (see Appendices A and B for a complete salary schedule for each system). Two DoDEA school districts are located in North Carolina and all compete for the top teachers.

Table 10. Lowest and highest salaries on the 2000-2001 teacher salary schedules for DDESS , DoDDS and Charlotte-Mecklenburg, NC .

System	**Starting Salary** **Bachelors & no years of experience**	**Highest Salary** **Doctorate & longest years of experience**
Overseas-DoDSS ***= plus housing**	$30,700*	$63,550*
Domestic-DDESS	$29,276	$71,026
Charlotte-Mecklenburg, NC **Teacher Salary**	$28,068	$60,104
Charlotte-Mecklenburg, NC **National Board Teachers**	NA	$67,013

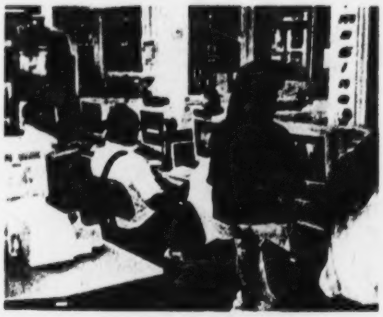
Staffing

The allocation of staff in a DoD school district is based on a DoDEA staffing formula. There is little flexibility in this formula because districts receive a set number of positions. Schools can not elect to delete positions and use the money for another purpose without approval.

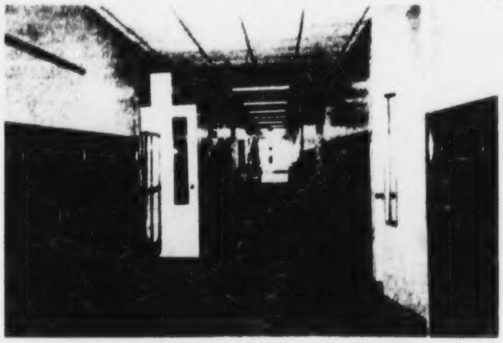
Table 11. Typical staffing pattern for a DoDDS 7th-8th grade school of 600 students:

Position	Full time Equivalency
Principal	1.0
Assistant Principal	1.0
Teachers	26 (1.0 FTE per 23 students)
Seven day period	Plus 12% of grades 7-8
Compensatory Education Instructional Support	1.0 per 70 requiring math and/or language arts
ESL	1.0 per 40 ESL weighted: Level 1-3 Students Level 2-2 students Level 3-and above-1 student
TAG	1.0
Special education	Identified by caseload
Guidance Counselor	1.0
Information Specialist	1.0
Education Technologist	1.0 +
Nurse	1.0
Special Education Aide	Based on Sp. Ed. teachers
Clerical	4.0

Facilities and Equipment



The exceptionally clean facilities and state-of-the-art equipment that are a hallmark of DoDEA schools support enhanced teaching and learning. Although these schools vary in age, we found them to be uniformly clean, well-maintained, and almost always spacious. It is not uncommon for a middle school to include a large gym, two well-stocked music rooms, a multi-media room, multiple computers labs, a large cafeteria, an ample-sized industrial arts classroom and laboratory, wide hallways and multiple meeting rooms for faculty and staff. Students regularly utilize CAD (computer assisted design) software to create their products prior to construction in the industrial arts laboratory. State of the art, on-line computer labs are regularly used by language arts teachers for instruction and by their students for multi-media presentations using Power Point. Computers are made available to students after school as well as during the school day.



Summary of Financial Resources

DoDEA schools are sufficiently, but not lavishly financed. The cost per pupil is higher than the national average; however, DoDEA funding resources are restricted to solely Department of Defense monies. Teachers are compensated well and their salaries are competitive with large school districts. In general, DoDEA facilities are spacious and clean with state-of-the-art equipment supporting enhanced teaching and learning.

IV. Curriculum & Instruction

> "We spend a massive amount of time on our curriculum. Now of course people said, isn't that teaching to the test? No. We are testing what we are teaching." (principal, DoDEA)

Well-qualified teachers, high expectations, and academic focus characterize the Department of Defense schools. At a time when many school districts have large numbers of vacancies among the teacher ranks and uncredentialed staff, DoD has a strong teaching force. The teachers in the DoD system have many years of experience and high levels of education, receive extensive on-going training and exhibit a strong commitment to teaching. Teachers and students share high expectations. The focus on academics is evident in the disciplinary procedures, scheduling, heterogeneous groupings, student supports, assessment, and innovative practices.

Teacher Quality

> "Many years ago I earned a master's degree and have worked for DoD for 18 years teaching 7th and 8th grade English. I come in early and stay late, preparing for class, working with kids after school, and working out different lessons for students who are in need of a different kind of help. I'm constantly being offered opportunities to develop more skills in teaching the language arts area. We have writing process workshops, speakers on brain research and small groups trainings where expertise is shared. On my own, I went to a National Conference with some students." (teacher, DoDEA)
>
> "We know what we are doing. We are good and we are dedicated." (teacher, DoDEA)

Common indicators of teacher quality point to a strong teaching force in DoD schools. These teachers tend to have many years of teaching experience, high levels of education, and are fully qualified to teach their subjects. In addition to these attributes, DoD teachers participate in integrated and extensive professional development, and exhibit a strong commitment to and enthusiasm for teaching.

Teaching Experience and Degrees Attained

Research has linked teacher qualifications and ability to student achievement. Robert Mendro (Archer, 1998) tracked student performance in math and reading from grade 1 to 12 in the Dallas school system. He found a 41 percent drop in average standardized test scores for students who had ineffective teachers for three years. A Harvard study indicated that spending more on highly qualified teachers produced greater gains in student performance than spending on any other item (Ferguson, 1991). Another study found that the percentage of teachers with master's degrees accounted for 5 percent of the variation of student scores (Berliner, 1993). A significant problem in urban districts, where there are high concentrations of minority students, is that many newly hired teachers have no teaching license or emergency credential (Education Week, 1998).

In DoD schools, a licensed teacher fills nearly every position and many teachers have extensive work experience and hold graduate degrees. As indicated below (see Table 12), 73 percent of the teaching force in DoDEA has over 10 years of experience while only 10 percent of teachers have fewer than 3 years of experience. It is important to note that 64 percent hold master's degree and 2.5 percent have doctorates.

Table 12. Percent of DoDEA teachers by years of experience.

New - 2	10%
3 – 9	17%
10 – 20	31%
> 20	42%

Table 13. Percent of DoDEA teachers by degree level.

BA/BS	34%
MA/MS	64%
Doctorate	2.5%

(based the 1999-2000 DoDEA Profiles)

Professional Development

> "We probably have the best staff development program I have ever seen or read about. I truly believe that the success we have with kids is because of the training we give teachers. We have to train, train, train…You have to have a teacher who wants it. And we do. (principal, DoDEA)
>
> "It is almost like an extended family when you come here. The teachers are very friendly, willing to cooperate with each other, willing to share information." (teacher, DoDEA)

Education literature contends that professional development can be more effective by closely linking training to school initiatives to improve practice, offering intellectual, social, and emotional engagement with ideas and colleagues, and providing time and follow-up support for teachers to integrate new strategies into practice (Corcoran, 1995). In addition, a Rand study concluded that professional learning is critically influenced by organizational factors at the school site and district, such as active involvement of the administration (McLaughlin & Marsh, 1990). Furthermore, the study found that teacher efficacy, a belief that the teacher can help even the most difficult student, was positively related to the number of goals achieved, amount of teacher change, and improved student performance. It is not surprising that DoD teachers believe they receive effective training.

Professional development is strongly supported in DoD schools. There are opportunities to take university continuing education courses throughout the world. In addition, every district that we visited had an array of professional training options available to teachers.

All districts in the study reported extensive staff training linked to school goals which occurs over extended periods of time. Staff development primarily reflects school goals. Teachers have attended training workshops in various cities but much staff development occurs at the school site. When the school, district or DoDEA places a priority on a certain area, well organized training activities are routinely made available to staff. In many cases, the training takes place over many weeks or months so teachers can practice strategies in the classrooms. Curriculum specialists, principals, and fellow teachers provide coaching for new skills. Sharing ideas among teacher teams and grade levels is a regular activity in which teachers receive helpful ideas. Teachers uniformly praised the top quality of relevant training opportunities.

DoDEA encourages continuing education units. Teachers based in the U.S. and overseas reported that their school was linked to at least one university where they could continue to gain college credit while they maintained their full-time position. Some overseas teachers found access to college classes easier overseas than in the U.S. (civilian) school districts. U.S. based teachers must maintain their state teaching license while overseas teachers must comply with DoDDS continuing education requirements. However, training for DoD teachers is not limited to university offerings.

Commitment and Enthusiasm of Teachers

> "We all just volunteer our time. It is a sense of community…. Education is important. We all care, and we all have a different part to play." (principal, DoDEA)
>
> "A lot of power is given to teachers if they want it. We are well respected. And the salaries are good." (teacher, DoDEA)

With many of the pressing problems of public education, Linda Darling-Hammond (1990) stresses the crucial need for teacher professionalism. She asserts that professionals base their decisions on knowledge, their first concern is the welfare of the client, and they hold collective responsibility for professional standards of practice and ethics. She concludes that teacher professionalism will increase the probability that students will be well educated.

In general, DoD teachers are committed to and enjoy their job. They view themselves as professionals and work hard to provide their students with a quality education. It is not unusual to hear that teachers stayed after school to work with students or attend trainings on a regular basis. Throughout the system, teachers enjoy coming to work and are enthusiastic about teaching even when they had been in the classroom for over 20 years. One teacher stated, " A major factor in feeling contented at work is our ability to explore something new. Teachers have been allowed to flourish here". This commitment and enthusiasm are accompanied by high expectations from staff.

High Expectations

> "In my old district (a predominantly African American inner-city school), if a student didn't pass a test, one might say, 'okay, you tried.' Here they push the kids and don't allow them to settle for less. When they don't succeed, the teacher works harder to get the student to want to excel. The curriculum is not dummied down. This makes kids feel good and they are able to meet the extremely high expectations." (teacher, DoDEA)

> "I think that the school has to accept responsibility to make the difference for kids, not expect the kids to conform to make the difference for us. That is my belief. It is our job to teach the children in the way that will fit the kids best. And no excuses." (superintendent, DoDEA)

Ronald Ferguson (1998) asserts that teacher expectations impact achievement, especially black student performance. He argues that teachers have lower expectations for black students than for whites. These expectations are based on past performance and behavior, not merely race. By basing expectations on children's past performance, teachers perpetuate racial disparities in achievement. However, when teachers engage in professional development activities that demonstrate disadvantaged black children's abilities to perform at a high level, teachers' expectations often change.

High expectations are the norm in DoD schools. These high expectations are manifested in the use of elevated standards, teachers' sense of personal accountability, and their proactive approach to educating a highly transient student population.

DoD staff proudly state that they hold some of the highest national standards, which they believe contributes to their success. Written curriculum standards for core subject areas exist for pre-K through 9th grade. The rigorous standards were obvious in classrooms. As one teacher said, "We are not satisfied with average. We want students to go higher." Teachers clearly feel a strong sense of accountability for the achievement of their students. They also hold themselves to high standards; "I need to be held accountable for being prepared every day and for doing everything I can for each student."

Students in DoDEA schools confirm that teachers hold high expectations for them. As part of the school climate survey administered to students who took the 1998 NAEP reading test, respondents were asked to rate teacher expectations for student achievement (response scale includes: very positive/somewhat positive/somewhat negative/very negative). In DDESS, 81% of the students reported that teachers' expectations of students are "very positive," compared to 58% in the national public school sample (see Table 14). When disaggregated by race, the results are even more remarkable and relate significantly, we believe, to the linkage between high minority achievement and teacher expectations in DoDEA. **In the DDESS system, 85% of Black students and 93% of Hispanic students report that teachers' expectations are "very positive" for student performance, compared to 52% and 53%, respectively, in the national sample.**

Table 14. Percentage of students who rated teacher expectations of student achievement "very positive" on 1998 NAEP reading test.

Race/Ethnicity	DDESS	Nation
White	70%	60%
Black	85%	52%
Hispanic	93%	53%

Coupled with high expectations for student achievement is a sense of urgency shared by DoDEA faculty members. Teachers know that their time is short with students; a typical tour of duty is three years. When school records do not arrive with students, staff members conduct informal assessments. At some schools, counselors may assess students' performance levels and at other schools teachers have individual tools to assess academic skills. Orientation for new teachers emphasizes the need to obtain a functioning level and provide individual instruction to catch students up or fill in gaps. If teachers can not do this on their own, they can request additional support. High mobility in the system is not an acceptable reason or rationale for lowering expectations.

Academic Focus

> "I think that the emphasis is 100% on the kids. We have some less than good teachers, but that is the exception. I think that there is a

> real effort on the part of the system, from the superintendent on down, to support staff development and new ideas." (teacher, DoDEA)
>
> "I don't think it is one single factor. I think we have very, very good schools. I think we have a tradition of equity. I would like to make it rather uncomfortable for people who aren't willing to do that." (Superintendent, DoDEA)

Miles and Darling-Hammond (1997) found that high performing schools reflect a set of common strategies used to improve academic success. These strategies include: 1) a common planning time to cooperatively develop curriculum; 2) a reduced number of specialized programs replaced by an integrated plan to serve students in the regular classroom; 3) targeted student groupings designed to meet individual needs and enable personal relationships; 4) modified school schedules to permit more varied and longer blocks of instructional time, and; 5) creatively redesigned roles and work hours for staff to help meet goals. For example, some staff may be part time employees and work after school.

DoD schools embrace many of these strategies to meet academic priorities and goals. Controlled discipline, appropriate schedules, heterogeneous grouping, student support, assessment and academic rigor contribute to the DoD system's focus on high academic performance.

Order and Discipline

Severe discipline problems such as use of drugs, alcohol, graffiti and violence are almost non-existent. The military does not tolerate these behaviors on post and families can have their housing privileges withdrawn. More common discipline problems are attendance and minor acting out behaviors. Even these are not viewed as significant problems. Some principals report decreased classroom behavioral problems with the implementation of performance standards, uniforms, and "shadowing" by parents. (Shadowing is a disciplinary tactic in which the parent spends the entire day with their child at school after a series of misbehaviors.) DoD schools have an option to contact the parent's commanding officer. However, this option is rarely used but everyone is aware of it. Overall, students feel comfortable at school and follow the rules.

Schedules for Learning

Most DoD schools have schedules that enhance learning. Some schools have recently instituted block scheduling and teaming. Almost all language arts teachers believe this is a superior arrangement since it allows students time to read literature and write on the same day. Core teachers are organized around teams and enjoy a planning period for integrating language arts, social studies, math and /or science. At some schools, this team planning is in addition to their preparation period.

Limited Tracking

Heterogeneous classes are the norm. Special education students and low achieving students are included in the regular core classroom. Special education and instructional support teachers (for lower achieving students) typically work in coordination with the classroom teacher. A few schools offer honors or advanced classes but some staff believe that these classes could lower expectations in other classes. One staff member stated, " If we expose all of our kids to rigorous courses, this will go a long way toward bridging the minority gap. Especially in middle school, kids' bodies and brains take them out of action for a while but they are still sponges. They are absorbing a lot around them. You don't want to drop expectations for anyone."

Additional Student Supports

Afterschool homework programs, tutorial periods, special education, support staff and specific instructional programs support the general education program. Afterschool homework programs are available at all schools. In addition, some schools have a seminar/tutorial block, which allows students to access any of their teachers during that period. Special education programs offer appropriate support to students with any disabilities. Although DoD schools do not receive Title I funds, schools have instructional support teachers for math and language arts even at the middle school level. Every school of sufficient size has a full time nurse and counselor on site. All schools had at least one computer lab and additional computers in the classrooms. A notable support program is the Advancement Via Individual Determination (AVID) which gives extra assistance to low achieving minority students to motivate them to go to college. Some teachers utilize Reading 180, which is a reading program for students with reading difficulties at the middle school level. Also notable are the Reading Recovery programs at some elementary schools for beginner readers who are not progressing in reading in first grade.

The Whole Child

Many DoD teachers hold the belief that "you start with a student from where they are." This means knowing students, building on relevant topics, and honoring individual learning styles. Teachers provide students with hands-on activities and challenge them to make relevant inferences and synthesize information, both higher level thinking skills. Teachers stay informed about the students' lives and deployment of parents. There was a caring nature in the schools we visited, and teachers seemed flexible to change plans for the day when emotional situations occurred such as deployment or death. Most teachers understand the stresses involved in being a military dependent.

Language Arts Instruction

> "I teach 7th and 8th grade language arts. All students participate in writing books for young authors. We have finished a unit on courage and they must have the character display one of the kinds of courage we have studied. The rest of the story decisions are up to them. It is a very important project for middle schoolers, to look back and then start to really look forward. We have mini lessons on mechanics but they also begin to work on finessing the style, tone, and the mood of their writing." (teacher, DoDEA)
>
> "Teachers know that writing is a priority in DoD and that comes directly from headquarters. Every superintendent has someone that hits that curriculum area. And we have had wonderful people in those jobs over the years." (teacher, DoDEA)

The exceptional quality of the language arts instruction in the DoD system has been evolving for decades. Students read various pieces of literature in the middle grades. Rich reading material is available to all students in classrooms and in school media centers. Reading assignments are coordinated through the teacher teams. For those with lower reading skills, additional help in reading is provided.

Writing across the curriculum has been present in the DoDDS system (overseas schools) and the DDESS system (domestic schools) for many years. Overseas, teachers in DoDDS initially piloted what was to become the National Writing Project which provides a range of strategies in order to make every student a successful writer and learner (Smith, 2000). Extensive, long term training and coaching was provided to teachers throughout the world. The new writing system has been endorsed by the entire system. It stimulated the adoption of new curriculum standards and assessment. The DoDEA Writing Assessment covers four genres: autobiographical incident, report of information, problem solution, and observation. Students incorporate the writing processes of prewriting, drafting, revising, and writing the final draft in this 3-day assessment.

Domestically, there has also been a long-term emphasis on writing as schools embraced quality state programs. Effective strategies were implemented and state writing assessments were adopted prior to the DoDEA standards and assessment. Word processing programs and power point are used for many assignments. Writing across the curriculum and writing scoring rubrics were present in every school that we visited. As noted earlier, 74% of DoDEA 8th grader students scored proficient or higher on DoDEAWriting Assessment (see Table 15). The long-term investment in writing has led to demonstrable outcomes in writing achievement for DoDEA students.

Table 15. Percentage of 8th graders by performance level on DoDEA Writing Assessment.

	Percent Distinguished	**Percent Proficient**	**Percent Apprentice**	**Percent Novice**	**Percent Not scorable**
All DoD Students	33%	41%	21%	5%	0%

Summary

Teachers in the DoD system are supported by a reliable and resilient network of instructional and material supports. They are well educated, well respected, and well paid. They exemplify a focused-on-results, dedicated and professional teaching corps. The structural system "at headquarters" provides a blueprint for high expectations related to student learning and academic performance. DoDEA establishes clear directions, goals, and priorities without dictating the methods or strategies to achieve strong results. This is a clear illustration of planning and execution via a bottom-up/top-down structural alignment. Curricular goals are nested within an assessment and professional development system that is coherent and comprehensive.

V. Social Context, School Community, and Military Commitment

> "Our kids come from at least quasi-literate homes where the parent who is the military member is going to have to study, read, and prepare for proficiency exams." (Superintendent, DoDEA)
>
> "There is no abject poverty. Every child in our building has a parent that goes to work every day. One can't minimize that effect on the education of children. So we are one step ahead of communities that have those issues." (principal, DoDEA)

Parent Demographics in the DoDEA System

It is widely repeated by school officials and other observers -- both inside and outside of the military -- that every child in the DoDEA system has at least one parent who is employed. Every child lives in a relatively secure neighborhood with other children of similarly employed parents. Family structures are different; income is more stable; housing is more secure in the military than in civilian life. Single families account for only 6.2% of all military families, far below a national rate of 27% (Military Family Resource Center, 2001; U.S. Census Bureau, 2001).

To be sure, family and neighborhood environments are a part of the complex achievement equation, as we noted earlier, and must be considered a dimension of the high minority achievement recorded by minority students on NAEP. Life is different on a military installation, even with the high mobility rate (35%) and transiency that mirrors many inner city schools and neighborhoods. As one DoD principal pointed out, "All our kids have homes and somebody to get up with in the morning."

We explored the issue of family environments (family income, level of parental education, occupational status/rank) represented in the DoDEA system by examining the distribution of rank and pay grade among DoDEA families and the educational backgrounds of military enlisted personnel and officers. The military basic pay tables, however, provide only a partial portrait of family income for dual-income families. The DoD data on active duty military personnel (See Appendices F and G) and the information on DoDEA families provided by school and military officials interviewed for this report, indicate the following:

- **DoDEA families reflect the general distribution of active duty military personnel; approximately 80% of school families are enlisted**;
- **Most enlisted men and women have a high school diploma only;**
- **The majority of enlisted military parents in the DoDEA system earn a modest average salary linked to a pay grade of Sergeant, Staff Sergeant, or Sergeant First Class.** (See Appendix H for a full salary schedule).

We believe that one of the most significant factors leading to the educational success of DoDEA students is the value placed upon education and training that permeates the military community, providing the foundation for parental support and reinforcement in ways that benefit children and help promote student achievement. The culture of order, discipline, education and training in the military community creates ideal conditions for schools focused upon these principles and expectations.

Education

> "There is a constant focus on education and learning, and we think that that translates in some respect, to the students themselves

> because of the focus and emphasis that they see in their parents." (Commander, U.S. Military)
>
> "I have never worked for a commander in any community which didn't support the school. Whether he agreed with me or not perhaps, he said, 'I'm here to support the school'." (principal, DoDEA)
>
> "We're talking about unity of command. I don't own the schools. I'm in partnership with them. When it comes to working and ensuring that the soldier's family has their child prepared to go to school and realize that they are responsible for it, that is what the military command does. Unity of command – it is a principle of war." (Commander, U.S. Military)

The "corporate commitment" to education from the U.S. military is unmistakable. The "place of duty" order to military personnel from military commanders to attend each and every parent-teacher conference is widely reported and well understood by teachers, principals, and parents in DoDEA. The order exemplifies a high level commitment to education from the top ranks of the U.S. military to all enlisted personnel, as well as officers. Individual military units on base are encouraged to adopt schools and to provide a range of services and assistance. The superintendents and principals interviewed for this study reported a generally high but variable degree of support from individual military units for the designated "adoptee" schools. The support ranges from free labor -- moving heavy desks and computer equipment at the schools, to unpaid consulting -- tutoring students in math and reading and mentoring in leadership and personal accountability. In addition to formal partnerships and parental involvement activities, DoD provides additional staffing to enhance communication between military families and educators and to identify and remedy school-specific problems more effectively. School liaisons (civilian) report directly to garrison/base support battalion commanders.

DoDEA has designated school-home partnerships a high priority, benchmark goal. Districts have responded to the goals outlined by DoDEA headquarters by enhancing communication between families and schools through electronic mail systems and voice mail "info lines" that can be easily accessed by parents. Military parents are also encouraged to serve on School Advisory Councils (SACs) that advise principals on policies and program priorities. The school system makes parental involvement a possibility through an "open door" policy of involvement; the military makes it a responsibility and obligation by linking education to personal responsibility and accountability.

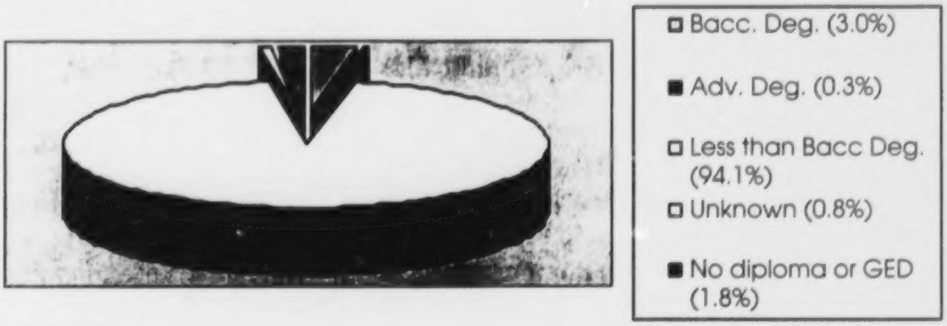
The military's commitment to education is grounded in a deep and pervasive tradition of education, training, and promotion. Pay grade/rank among military personnel is anchored to a program of education that is linked to a system of promotion points; the more education credits and degrees earned, the more points awarded toward rank promotion. As one commander noted, "education in the military makes you more valuable." Another senior military officer observed: "In the corporate world, you are going to have training, but we think it is more structured and more visible in the military."

Enlisted personnel.

According to military commanders interviewed for this study and a recent DoD (DMDC, 2001) demographics report, 94% of active duty enlisted men and women across all military services hold a high school diploma (see Figure 2). Some of these enlisted members are working toward an Associate's Degree (two-year college degree) or have completed an Associate's Degree; there are no data available on the percentage of enlisted personnel within this group (those with less than Baccalaureate Degree) who have a two-year degree.

Approximately 2% of all enlisted personnel do not have a high school diploma or a GED (DoD, 2001). Another 3% of the active duty enlisted personnel hold a Baccalaureate Degree that was earned through participation in the military continuing education system. (There are no data on the education levels for approximately 1% of the enlisted population). As highlighted above, *approximately 80% of all DoDEA students have a parent/military sponsor who is enlisted.*

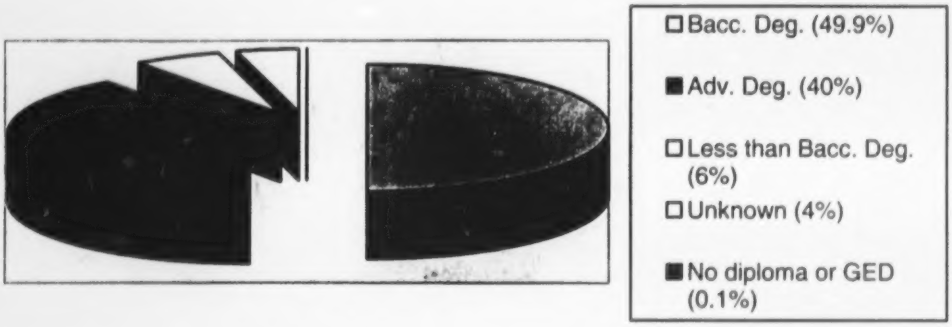
Figure 2. Education Level of Enlisted Personnel.



Officers.

Among all active duty officers across all military services, 50% hold a Baccalaureate Degree *only*, while 40% of all officers have a Baccalaureate Degree *and* an Advanced (Masters) Degree (see Figure 3). *Approximately 20% of all DoDEA students have a parent/military sponsor who is an officer.*

Figure 3. Education Level of Officers.



-DMDC Active Duty Master File

Rank & Pay Grade

This distribution of pay grade/rank among DoDEA military families reflects the pay grade/rank distribution among all active duty personnel across all military services (see Table 16).

Among the elementary/middle school aged children whose military sponsor/parent is *enlisted*, a majority of these children (60%) are in families in which the enlisted sponsor holds the rank of Sergeant (E-5) or Staff Sergeant (E-6) – the ranks that represent the traditional backbone of the U.S. active military force – mid-grade Non-Commissioned Officers. Another 30% of the children of enlisted personnel are in families in which the enlisted military sponsor/parent holds the rank of either Sergeant First Class (E-7), First Sergeant (E-8), or Sergeant Major (E-9).

Table 16. Pay Grade Distribution of DoDEA Military Sponsors of Elem-Middle School Ages.

Sponsor Pay Grade	**Elementary/Middle School Ages**			
	Ages 6-11	**Ages 12-14**	**Total**	**Percent**
E1 – E4	37,574	5,373	42,947	8%
E5 – E6	212,681	66,560	279,241	49%
E7 – E9	83,927	52,152	136,079	24%
W1 – W5	8,895	4,482	13,377	2%
01 – 03	24,000	7,027	31,027	5%
04+	47,822	21,398	69,220	12%
Total	**414,899**	**155,992**	**571,891**	

High schools reflect a somewhat different military parent population, with more members who are slightly older, have more years of military experience, and have a higher military rank/pay grade (see Table 17). A larger percentage of high school aged children -- approximately 28% -- are in families in which the military sponsor is an officer (e.g., Majors (O-4) and Lt. Colonels (O-5).

Table 17. Pay Grade Distribution of DoDEA Military Sponsor of High School Ages.

Sponsor Pay Grade	High School Age and Above	
	Number	Percent
E1 – E4	3,922	2%
E5 – E6	54,661	30%
E7 – E9	73,307	41%
W1 – W5	6,465	3.5%
01 – 03	6,861	3.5%
04+	35,624	20%
Total	180,840	

-Defense Manpower Data Center (2000)

Income

> "It is a very stable, predictable life. You always know you are going to get your next paycheck. Everybody is employed… but they are not wealthy. They are not even sometimes middle class. They're at the poverty level." (Superintendent, DoDEA)

Pay grade/rank is linked to soldier pay and family income. Enlisted men and women at the rank of E-4 to E-7, with *four* years of service, earn a monthly basic pay of between $1,576 for the E-4/Corporal pay grade to $2,150 for the E-7/Sergeant First Class pay grade (See Table 16). With *eight* years of service, enlisted personnel earn monthly pay between $1,856 ($22,272 annually) for E-5/Sergeant to $2,622 ($31,464 annually) for E-8/First Sergeant. (See Appendix H for a complete salary schedule).

As noted earlier, among the elementary/middle school aged children whose military sponsor/parent is *enlisted*, a majority of these children (60%) are in families in which the parent/enlisted sponsor holds the rank of Sergeant (E-5) or Staff Sergeant (E-6) and earns annually between $22,272 and $24,552.[4]

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[4] Officers with the rank of Captain (O-3) with four years of service earn monthly basic pay of $3,489 ($41,868 annually). Majors (O-4) earn a monthly basic pay of $3,740; Lt. Colonels (O-5) earn $4,280. With eight years of service, Captains earn 3,840 monthly; Majors earn $4,128 and Lt. Colonels $4,451. Among elementary-

Table 18. Monthly military pay (selective list), by rank.

Pay Grade	Years of Service		
	4	6	8
	Enlisted Members		
E-4	$1576	$1653	$1653
E-5	$1701	$1777	$1855
E-6	$1891	$1969	$2046
E-7	$2149	$2227	$2303
E-8	0	0	$2622
	Commissioned Officers		
O-3	$3489	$3656	$3839
O-4	$3739	$3953	$4127
O-5	$4280	$4450	$4450
O-6	$4930	$4949	$5160
O-7	$6112	$6340	$6514

-ArmyTimes (January 15, 2001).

Military commanders and school officials noted in our interviews for this report that military families are often, "not even sometimes middle class." We agree. The high proportion of enlisted men and women clustered around the ranks of Sergeant and Staff Sergeant means that most families with children enrolled in DoD schools are only slightly above the poverty threshold. The U.S. Census Bureau defines poverty thresholds according to family size and composition. If a family's total income (before taxes and excluding noncash benefits such as public housing, Medicaid, and food stamps), is less than the poverty threshold for that family's size, then that family, and every person in that family, is considered poor. The U.S. Census Bureau's poverty threshold for a family of four is $19,680. The average military family has two children (Military Family Resource Center, 2000). As noted above, a Sergeant with eight years in the service earns $22,272 annually and a Staff Sergeant with the same experience earns annually $24,552. It is noteworthy that poverty is not defined for people living in military housing. These families, according to the Census Bureau (1999), are considered "neither as poor nor as nonpoor" (p. v).

The pay grades and salaries for DoDEA military parents explain and underscore the fact that approximately 50% of all students in the DoDEA system qualify for free or reduced lunch (DoDEA, 1999). This figure masks large differences *within* school districts/base systems, where the numbers are often higher. In one DDESS district, for example, the percentage of pupils eligible for free or reduced lunch ranges from a low of 36% in one elementary school with a relatively high

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and middle school-aged dependents of military officers, the majority (63%) have a parent-sponsor with a rank of O-4 (Major) or higher.

proportion of senior enlisted and officers' children, to a high of 82% in a nearby elementary school, where the vast majority of students come from the families of junior enlisted (e.g., E-3/Private First Class, E-4/Corporal, E-5/Sergeant) men and women. These within-school district ranges are typical across most DDESS and DoDDS districts and reflect base housing patterns segregated by rank and school attendance policies tied to attendance zones on base (as are civilian school district enrollment policies tied to neighborhoods).

Social Services and Support Systems

> "Even though their mission is more peacekeeping now, I think it is a hard life. So they go away, they leave family here. We have families where sometimes the moms don't handle it well. We have all kinds of stuff. I think we have a little bit higher incidences of child abuse... I don't think our lower ranks are paid very well. When we have so many kids on free and reduced lunch, it is kind of a travesty." (superintendent, DoDEA)

> "The military has incredible support systems." (principal, DoDEA)

DoD schools and their communities reflect a village life -- one stocked with an array of social and material resources and organized around a network of support for families. But village life is often difficult and demanding for military families. The distracting and debilitating aspects are widely known and well understood: constant moving, poor housing, low salaries for enlisted personnel, limited access to health care and child care, lack of spousal employment opportunities. Against the backdrop of these pressing needs, the military services offer supportive programs designed to address many of the demands of the mobile and modern, military family.

Programs and services provided for families who "live on post" include the basics – housing and health care – and extend to the amenities that make life more comfortable and sustaining. Typical military base services include: grocery stores and fast food restaurants, banks, post offices, libraries, churches, recreation centers (including new, state-of-the-art youth service centers), fitness centers, baseball and football fields, gymnasiums, theatres, bowling alleys. Some military installations include riding stables, golf courses, tennis courts, and swimming pools.

Child Care

The Department of Defense Child Development System (CDS) provides full-day and part-day, child care services to pre-school and school-age children at Child Development Centers (CDCs) and other locations on military installations. The military child care system includes a Family Child Care (FCC) component that coordinates in-home care by certified providers. The CDS programs are widely recognized as a national model among child care providers in the U.S. in terms of staff training, educational programming, and facilities. The programs meet all standards established by the National Association for the Education of Young Children (NAEYC), the National Association of Family Child Care (NAFCC), and the National School- Age Care Association (NSACA).

Collectively, CDS programs provide approximately 174,000 spaces of child care for infants and children up to 12 years of age; Despite the scale and scope of the program, DoD estimates that the system meets only 58% of the military family needs (Military Family Resource Center, 2001). All fees for military child care are cost-shared 50/50 by the DoD and are provided on a sliding scale to military families. Despite this, the military commanders and military sponsors (parents) interviewed for our study indicated that the long-waiting lists and relatively high fees make it a difficult and frustrating system to access. For enlisted men and women struggling to support families on a monthly salary that average about $1,850 for mid-level enlisted personnel (Sergeants/E-5 and Staff Sergeants/E-6) – the military pay grades with the largest proportion of dependent infant to middle school-age children), an average monthly child care fee of $300 (Military Family Resource Center, 2001) creates acute financial strain. According to the GAO (2001), DoD child care costs average 7% more per child than civilian center costs.

Health Care

Many of the same issues that plague the highly regarded military child care system are shared by the military's health care programs. On most military installations, health clinics and hospitals are considered modern and are believed to offer high quality health care. The persistent problem rests with availability and access. Military commanders interviewed for this study noted that long waits and delayed care are not uncommon for soldiers and their families. As one enlisted female solder observed, "The care is very good when you can get it." A commander in Germany noted that access to health care is the "most prevailing concern that the military families have today."

Life on Base and Impact on School Climate: Housing

> "It's kind of depressing. As far as the housing projects in America, we are probably right below them." (Enlisted, U.S. Military; mother of four)

Many of the programs and facilities have been recently (or are scheduled to be) expanded and renovated in response to a growing demand for improving family life on post. This is particularly true in the case of housing.

Housing on base is organized according to rank. The larger, more dispersed and more attractive homes and duplexes are set aside for junior and senior officers and the more modest, more densely situated apartment or duplex units are assigned to enlisted personnel.

The military was the first major institution or organization to recognize the need to integrate housing and schools simultaneously; this effort was initiated shortly after World War II. Today, military housing patterns reflect this commitment to racial integration, although the rank segregation in military housing persists.

Our field observations of housing on numerous military installations in the U.S. and overseas confirmed that most of the military housing is shabby and cramped, and similar to HUD projects. In the neighborhoods that serve junior enlisted personnel, there is little landscaping. Tiny yards of dry weeds, few trees, and cracked concrete driveways are commonplace. Large garbage dumpsters dot and dominate the landscape. Many enlisted neighborhoods are stark and depressing with small duplexes that appear to have been overlooked and neglected for decades. Laundry facilities are located in the basement in the four-story apartment complexes located on most overseas installations; these high-rise buildings have no balconies and offer only limited open space for children to play.

Military commanders noted that housing needs are intense and have long been neglected in the last decade's emphasis upon troop reductions and budget cuts. The Services are currently engaged in the first phase a 10-year housing renovation project, with a specific focus upon the 50-year old quarters overseas that have never been renovated. Many of these are 4-story block structures with tiny three- and four-bedroom apartments. The apartments buttress an often noisy and frequently cluttered stairwell that acts as an echo chamber. A Base Support Battalion Commander in Germany noted that the close resemblance between military housing and public housing creates resentment and leads to low morale. Military housing on base, however, offers a far more affordable

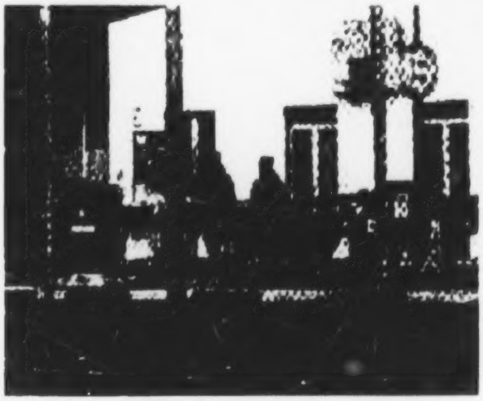
63

option than living "on the economy" in the neighboring off-base apartments or houses.

School principals interviewed for this study underscored the fact that the dense and depressing housing conditions for enlisted families spillover to student frustrations, arguments, and fighting at school. "If there is something going on in that stairwell, it comes to school," one principal noted, and then added: "It's one step above welfare. It's not bad housing, but it's close."

Life on Base and Impact on School Climate: Safety and Support

> "I have had the .357 Magnum brought to school. The difference between here and another school? The kid brings this, gets on the bus, packing his .357 Magnum with the hollow point bullets that he has taken out of his dad's nightstand. Now dad should have had it locked up, that is a base reg. The difference between here and some other school is he showed it to a kid and within three minutes, the other kid told. Our kids tell." (superintendent, DoDEA)



Although infrequent, DoDEA schools experience some of the threats of violence associated with guns and gangs. In the U.S. and in DoDEA schools overseas, efforts to recruit base kids to join youth gangs is a problem that occurs with varying degrees of success and frequency, depending upon the local circumstances in the community. A significant gang problem arose some years ago in DoDDS schools in Germany, and continues to be an issue in some school districts in the Southeastern United States. To be sure, guns are a central element of military life and culture. As DoDEA teachers and administrators noted, many students are familiar with guns and ammunition; they may have observed a parent clean a gun, apply the safety mechanism, or load it with ammunition. Guns are a part of DoDEA parents' worklife. On base, these students can hear the sounds of gunfire that boom and crackle across the schoolyard from the practice fields, sometimes located less than a mile away from school. But incidences in which students bring guns to school stand out as noteworthy and memorable for school staff because they constitute such a rare event in the life of the school. Indeed, a principal in our study observed that military base schools remind him of the "good old days" some 30 years ago when discipline issues in middle schools involved such problems as kids running in the hallways, chewing gum, and wearing pants without belts (the hanging shirttail problem). Other DoD principals echoed this sentiment.

DoD school personnel enjoy the luxury of worrying about the small things. We believe that the explanation rests with three integrated elements found in DoD schools: a strong sense of community, small school size, and a focus upon personal accountability.

Small School Size

A caring, supportive school community is linked to student achievement (Bryk & Driscoll, 1988; Bryk, Lee & Holland, 1993; Coleman & Hoffer, 1987). The positive outcomes for students stem from a clear sense of shared values among families and teachers. Recent research suggests characteristics associated with "communally organized" schools are found in Catholic schools (Bryk, Lee & Holland, 1993) and in some magnet schools (Smrekar, 1996). We would add DoD schools to this category of "communally organized" schools. These schools tend to be structured in ways that facilitate regular and mutually-supportive communication among members, foster social cohesion and commitment to common ideals, and create an elevated degree of "shared space and shared meaning".

Research indicates students learn more, behave better, and are treated more equitably in smaller schools (Lee & Smith, 1997; Lee, Smith & Croninger, 1995; Wasley et al, 2000). Smaller schools lead to more productive relationships between teachers and students by establishing an environment focused on achievement and development, not control and discipline (Fine, 1991; Powell, Farrar & Cohen, 1985; Sizer, 1992). These conditions lead to a greater sense of community, collegiality, support, and trust (Cotton, 1996; Meier, 1995; Raywid, 1995).

The average middle school and high school is smaller in the DoD system compared to average middle school and high school enrollments in most states (NCES, 2000). A small school is defined as an elementary school with fewer than 350 students, a middle school with fewer than 600, and a high school with an enrollment of 900 or fewer (Education Week, 2000; Lee & Smith, 1997; Wasley et al, 2000). The average middle school enrollment is 466 in DoDDS and 489 in DDESS. The national average for middle school enrollment is 595 (NCES, 2000).

- Overall, two-thirds of the middle schools (10 out of 15) in our study's sample of DDESS (domestic) and DoDDS (overseas) districts are small.

- In our five DDESS districts, 22% of the elementary schools, 50% of all middle schools, and 100% of the high schools are small.[5]
- Among the six largest DDESS (domestic) districts, which encompass two-thirds of all students enrolled in the DDESS systems and two-thirds of all DDESS schools, over 60% of all middle schools are small.
- Of the total of nine middle schools in the DDESS system, two-thirds are small.
- Approximately 39% of all middle school students in the DDESS system attend small middle schools.

DoD middle and high schools tend to be small.[6] This portrait stands in start contrast to many urban school districts in the U.S. and the environments in which most minority students attend school (Orfield & Yun, 1999; NCES, 1998). According to a recent Bank Street College of Education study (Wasley et al, 2000), it is "not uncommon for young urban children to attend schools of 500 to 1,000 elementary students, and high schools ranging from 800 to 3,000 students" (p. 2). The Bank Street researchers report that over 40% of public high schools serve over 900 students (Wasley et al, 2000). The problem is not limited to school size. **Increasing racial and social class segregation in residential neighborhoods in the U.S., means that minority students who are low-income tend to be concentrated with other similarly disadvantaged students in large, urban middle and high schools (Orfield & Yun, 1999). Indeed, the average Black or Latino student in the U.S. attends a school that is 70% minority and 50% poor; one-third of all minority students attend schools that are 90% minority (NCES, 1998).** The problem of concentrated poverty is often unnoticed in these low-morale, under-funded public schools that serve most minority students in this country. Earlier, we underscored the fact that the military was the first major institution or organization to recognize the need to integrate housing and schools simultaneously; this effort was initiated shortly after World War II. Military housing is racially integrated, a pattern that creates naturally integrated schools on base without elaborate and expensive "crosstown" busing.

Recent research on school size effects strongly suggests that lower income and minority students benefit most from smaller middle and high schools (Lee & Loeb, 2000; Lee & Smith, 1997). Over a decade ago, an influential report by The Carnegie Council on Adolescent Development (1989) argued that middle schools represent a key strategic target for policymakers attempting to restructure large schools "that function as mills" (p. 37). The Carnegie report suggested that small schools were fundamental to education reform and high student achievement:

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[5] The average number of students enrolled in public elementary and middle schools (schools with grade spans that include any grades from pre-kindergarten - 8th grade) in the U.S. is 484. This is the same average for elementary/middle schools in the DoD system (NCES, 2000). The average number of students enrolled in regular secondary high schools in the U.S. is 786; the average number of students enrolled in DoD secondary schools is 457 (NCES, 2000).

[6] The *percentage of students in small schools* in the DoD system -- perhaps a more accurate and meaningful measure than *average enrollment* across an entire system of varying-sized schools (see footnote) -- compares favorably in a state-by-state analysis of small schools (see Appendix C).

> The student should, upon entering middle grade school, join a small community in which people – students and adults alike – get to know each other well to create a climate for intellectual development. Students should feel that they are part of a community of shared educational purpose (p. 37).

Sense of Community & Personal Accountability

In the DoD system, this small school size contributes to greater familiarity and personal knowledge of students, their instructional needs and strengths, and their unique family situations. This means that teachers and principals are keenly aware when parents go "down range" for training – an activity that may take a mother or father away from home for several weeks and result in added stress for the parent or "guardian" who remains at home. School personnel are prepared for the difficulty such separation brings to young students. Special care and attention to these students' needs are part of "teaching" in these schools. One commander noted that Family Care Plans that function as a back-up care system for children when soldiers are deployed, reflect this "chain of concern." The system involves school principals and teachers in addressing the upheaval and separation triggered by troop training and deployment. This seamless support system is facilitated by the social organization of DoD schools evidenced by a high degree of personalization and caring among school staff.

The research on school size suggests that the benefits of smaller schools may be linked to the organizational conditions and social processes *facilitated* by smaller school settings (Lee & Loeb, 2000), including: 1) a strong and focused curriculum; 2) enduring and supportive relationships between school staff and students, and; 3) a climate of high expectations and personal attention to students. Our discussion earlier (see "Curriculum and Instruction") clearly documents these conditions and processes in the DoD schools. The important point is that creating smaller schools may be one of the most effective levers for enhancing learning in schools characterized by poverty and social isolation. Creating smaller "learning communities" (Carnegie Council on Adolescent Development, 1989) or schools-within-schools (Wasley et al, 2000) may very well facilitate the organizational and social conditions evidenced in DoD schools, and could lead to enduring educational benefits for minority students in civilian schools, as well.

On Campus and On Base: Stability Amidst Mobility

> "I think more of the commanders are seeing that 'if I have happy families, I have happy soldiers. And if kids are happy in school and things are going well, I have a better soldier'." (teacher, DoDEA)

> "In the Army, there is still racism, just like any other institution. The difference is that the Army, I believe, identifies it and has an institutional mechanism for not tolerating it." (Senior officer, U.S. Army)

Soldiers typically spend three years at one military post before being re-assigned to another post. Consequently, school populations are in constant flux, with an average student population turnover of about 35% each school year. Despite this high transiency, teachers seem unfazed by the constant inflow and outflow of students. "You get the kids and then they leave you," one teacher remarked. But later she noted that this transiency is counter-balanced by the fact that teachers in DoD tend to be "career teachers" who stay in one place for an average of 20-25 years, effectively creating a foundation of stability amidst this mobility. Staffing necessary to meet the technical challenges posed by this high mobility rate is in place at each DoD school in the form of full-time registration and records clerks who are responsible for efficient transfer of data records for each "mobilizing" student.

The strong sense of school community and familiarity begins in the base neighborhoods that enjoin all military families in a cohesive network of discipline, routine, accountability, and commitment. Military and school staff referred often to the "village" culture of support associated with military base life, in which families closely linked by membership and motivation to "move up in the ranks" develop a sense of shared responsibility for children's safety and well-being. "This is like 'Leave it to Beaver Land', one Marine commander noted, "it's cloistered and it's protected, but it is a shared responsibility." As a consequence, **kids don't get lost in these robust school communities and they can't be anonymous**. These closely-knit communities are a contemporary version of the mill town of a century ago in which work, family, commerce, and schooling embraced all members in a cohesive, self-contained, social structure.

These schools embrace what researchers call social capital: "the norms, the social networks, and the relationships between adults and children that are of value for the child's growing up" (Coleman, 1987, p. 36). DoD schools reflect the critical elements of social capital that include shared values, norms, and attitudes that help promote trust, facilitate open and fluid communication, and produce purposeful and meaningful activities that benefit students and adults alike in schools. Social capital within the military community *and across racial groups* is cultivated and sustained because there is an obvious and explicit affiliation among members. These families are bound in stable, predictable, and enduring social ties that spillover into the schools.

The combination of smallness and an emphasis on individual responsibility and accountability are manifested in school buildings that are quiet, clean, and orderly. As one Army commander observed: "If you notice, there is no spray painting around the high school. You don't see the desks ruined. If you go into the bathrooms, they aren't graffiti scratched. People are held accountable."

Summary

> "A big part of our success is that we really encourage every kid to be successful. We push for that.... If teachers truly believe that every child will learn and will succeed, they will. But not every teacher everywhere believes that and not every parent believes that and certainly not every child believes that." (teacher, DoDEA).
>
> "Nobody targets minority students. They don't do as well here as white students, but they do better." (teacher, DoDEA)

DoD schools are nested within a tightly-knit community life on U.S. military installations. Safety, support, and cohesion distinguish these residential, social, and educational environments. At least one parent is employed (although many at a military pay level that meets federal poverty thresholds); housing and health care are provided to all members. Single parent households among military families reached 6.2% this past year (a system high of 7.5% in the Army) and are increasing but are far below the national average of 27% (U.S. Census, 2001; Military Family Resource Center, 2001).

We do not ignore the absence of neighborhood drug activity, gang violence and guns in these military communities. We do not dismiss the role that safety, stability-amidst-mobility, and parental employment play in enabling DoD schools to thrive. Many of these out-of-school conditions can't be replicated easily. But other elements and "best practices" found in DoD schools can be (and should be) embraced by public school systems.

Next, we turn our attention to the levers for school improvement outlined in our report. Our intent rests with underscoring the conditions in DoD schools that can be emulated by public education systems across the U.S.

LESSONS FOR STATE AND LOCAL PUBLIC EDUCATION DECISIONMAKERS

1. CENTRALIZED DIRECTION-SETTING BALANCED WITH LOCAL DECISION MAKING

DoDEA's management strategy merges effective leadership at topmost levels (e.g., establishing systemwide curriculum standards) with school- and district-level discretion in determining day-to-day operations such as instructional practices and personnel decisions.

Policy recommendation:

Our findings suggest that state and local policymakers should utilize a management structure that functions as a "headquarters" for creating a blueprint for expected student learning and academic performance. DoDEA centrally establishes clear directions, goals, and targets without dictating methods for achieving results. This mix of top-down and bottom-up decision making creates local capacity and professional confidence. It also serves as a basis for clear accountability. Principals and teachers know what they are expected to accomplish and are held responsible for achieving those goals. A similar state-level priority setting strategy can serve as a springboard to propel higher academic achievement.

2. POLICY COHERENCE, STRUCTURAL ALIGNMENT, & EFFICIENT FLOW OF DATA

DoD schools reflect a strong and consistent alignment of curricular goals, instructional strategies, teacher supports, and performance assessment results. This is particularly evident in the area of writing, a subject area identified by DoDEA as a curricular priority and educational concern over 20 years ago.

Policy recommendation:

DoDEA assessment systems are embedded within a coherent policy structure that links instructional goals with accountability systems supported by professional training and development programs. State and local policymakers can begin by adopting a performance oriented information exchange that is systematic, clear, and comprehensive. States should provide every school and each district with detailed student performance assessment results. Using DoDEA as a model, each school should engage in a school improvement process to analyze student improvement needs and select student improvement goals. In

DoDEA, student outcomes are specifically tied to downstream performance improvement goals. Staff training and curricular intervention are coordinated with a school's individual improvement plan. The ability and disposition to notice and act on instructional problems, and to deploy resources to solve problems are critical elements of school improvement (Cohen & Ball, 1999).

3. SUFFICIENT FINANCIAL RESOURCES

DoDEA provides a high level of support in terms of district and school staffing, instructional materials, facilities, and technology. The level of support for teachers is generous and well recognized throughout the system.

Policy recommendation:

Money can matter, particularly when financial support is linked to specific, coordinated, and instructionally relevant strategic goals. State and local public education officials must acknowledge the crucial importance of sufficient resources. These resources enhance local capacity and strengthen the local districts' and individual schools' ability to implement school improvement goals. Sufficient resources enable districts to offer competitive salaries that attract and retain high quality teachers. Well maintained facilities, ample physical space, and appropriate instructional equipment can promote higher levels of learning.

4. STAFF DEVELOPMENT

DoDEA professional development is linked to an individual school's pattern of student performance. It is tailored teacher by teacher, carefully structured to enhance a teacher's identified deficiencies, and sustained over time.

Policy recommendation:

Professional development activities should be job-embedded; consistent with an individual school's improvement goals; based upon student needs and teacher interests; modeled, repeated and practiced over a long period of time. Professional training should include regular monitoring by peers or supervisors, sustained support, and regular feedback.

5. SMALL SCHOOLS

DoD schools tend to be small, leading to robust levels of trust, familiarity, effective communication, and a sense of community. Small schools lead to a strong sense of student and family engagement, not anonymity.

Policy recommendation:

Research evidence and successful practice continually reinforce the utility of small schools, particularly in constructing effective education for low income, minority students. A small school is defined as an elementary school with fewer than 350 students, a middle school with fewer than 600, and a high school with an enrollment of 900 or fewer (Education Week, 2000; Lee & Smith, 1997; Wasley et al, 2000). Creating smaller "learning communities" (Carnegie Council on Adolescent Development, 1989) or schools-within-schools (Wasley et al, 2000) may very well facilitate the organizational and social conditions evidenced in DoD schools, and could lead to enduring educational benefits for minority students in civilian schools.

6. ACADEMIC FOCUS AND HIGH EXPECTATIONS FOR ALL

DoD schools emphasize individual student achievement. High expectations are the norm in DoD schools. These high expectations are manifested in the use of elevated standards, teachers' sense of personal accountability, and a proactive approach to educating a highly transient student population. DoD schools do not generally group students by academic ability (i.e. tracking). Educational programs are provided that target lower-achieving students for in-school tutoring and homework assistance after school.

Policy recommendation:

Miles and Darling-Hammond (1997) found that high performing schools reflect a set of common strategies used to improve academic success. States should adopt these strategies, including: 1) a common planning time at each school to cooperatively develop curriculum; 2) a reduced number of specialized programs replaced by an integrated plan to serve students in regular classrooms (e.g., heterogeneous grouping); 3) targeted student groupings designed to meet individual needs and enable personal relationships; 4) modified school schedules to permit more varied and longer blocks of instructional time, and; 5) creatively redesigned roles and work hours for staff to help meet goals. High academic rigor, supported by appropriate professional development, restores a system's focus on high academic performance.

7. CONTINUITY OF CARE FOR CHILDREN

DoD schools are linked to an array of nationally recognized pre-school programs and after-school youth service centers. This "continuity of care" commitment is evidenced by the high level of investment in these top-ranked programs in terms of staffing, training, and facilities. The DoDEA programs are widely recognized as a national model among child care providers in the U.S. in terms of staff training, educational programming, and facilities. The programs meet all standards established by the National Association for the Education of Young Children (NAEYC), the National Association of Family Child Care (NAFCC), and the National School- Age Care Association (NSACA).

Policy recommendation:

State and local policymakers should utilize the DoDEA pre-school and after-school programs (e.g., youth service centers) as model programs that reflect the highest quality standards in the world. Many of these early and "out-of-school" educational activities contribute to enhanced student learning, self-esteem, and achievement.

8. "CORPORATE" COMMITMENT TO PUBLIC EDUCATION

DoD schools reflect an elevated "corporate commitment" from the U.S. military that is both material and symbolic. This commitment includes an expectation of parent involvement in school- and home-based activities (e.g., soldiers are instructed that their "place of duty" is at their child's school on parent-teacher conference day, and are relieved of work responsibilities to volunteer at school each month). This commitment to promoting a parental role in education far surpasses the level of investment or involvement embraced by mentoring/tutoring models found in most business-education partnerships.

Policy recommendation:

States and communities can gain similar levels of corporate commitment for public school students by making more visible the facets of the workplace that limit the ability of employees to participate in school-based activities (particularly the ability of hourly workers). Schools tend to structure school-based activities for traditional, stay-at-home mothers. At the same time, a large number of households include parents who are employed in full-time occupations that provide little flexibility and opportunity for parents to leave work during school hours. As schools begin to rethink the purpose and organization of their parent involvement activities, employers should re-evaluate workplace policies which hinder the kind of parental commitment to educational excellence that organized business groups are demanding in the current debate on the quality of our nation's schools.

Appendix A

OVERSEAS EDUCATORS SCHOOL YEAR 2000-2001 SALARY SCHEDULE

COMPREHENSIVE SCHEDULE FOR EDUCATORS AND SPECIALISTS

Steps	Bachelor's	BA15	BA30	Master's	MA15	MA30	Doctor's
1	30700	31740	32780	33820	34860	35900	36940
2	31860	32980	34095	35215	36330	37450	38570
3	33020	34220	35140	36610	37800	39000	40200
4	34180	35460	36725	38005	39270	40550	41830
5	35340	36700	38040	39400	40740	42100	43460
6	36500	37940	39355	40795	42210	43650	45090
7	37660	39180	40670	42190	43680	45200	46720
8	38820	40420	41985	43585	45150	46750	48350
9	39980	41660	43300	44980	46620	48300	49980
10	41140	42900	44615	46375	48090	49850	51610
11	42300	44140	45930	47770	49560	51400	53240
12	43460	45380	47245	49165	51030	52950	54870
13	44620	46620	48560	50560	52500	54500	56500
14	45780	47860	49875	51955	53970	56050	58130
15	46895	49015	51070	53190	55245	57365	59485
16	48010	50170	52265	54425	56520	58680	60840
17	49125	51325	53460	55660	57795	59995	62195
18	50240	52480	54655	56895	59070	61310	63550

1. Daily rate - All Teaching Positions. The daily rate (DCPDS Table S101) for positions paid from this schedule shall be 1/190th of the school year salary. The minimum increment earned is one-half day.
2. Kindergarten Teachers - Half Day Sessions. The school year salary for kindergarten teachers regularly assigned to teach one kindergarten session (half-day) will be one-half of the basic school year salary authorized by this schedule. The minimum increment earned is one-half day.
3. Steps 15, 16, 17, and 18 are longevity steps payable upon completion of four years service in steps 14, 15, 16, and 17, respectively.

Appendix B

DDESS 2000/2001 School Year Comprehensive Schedule for
Classroom Teacher

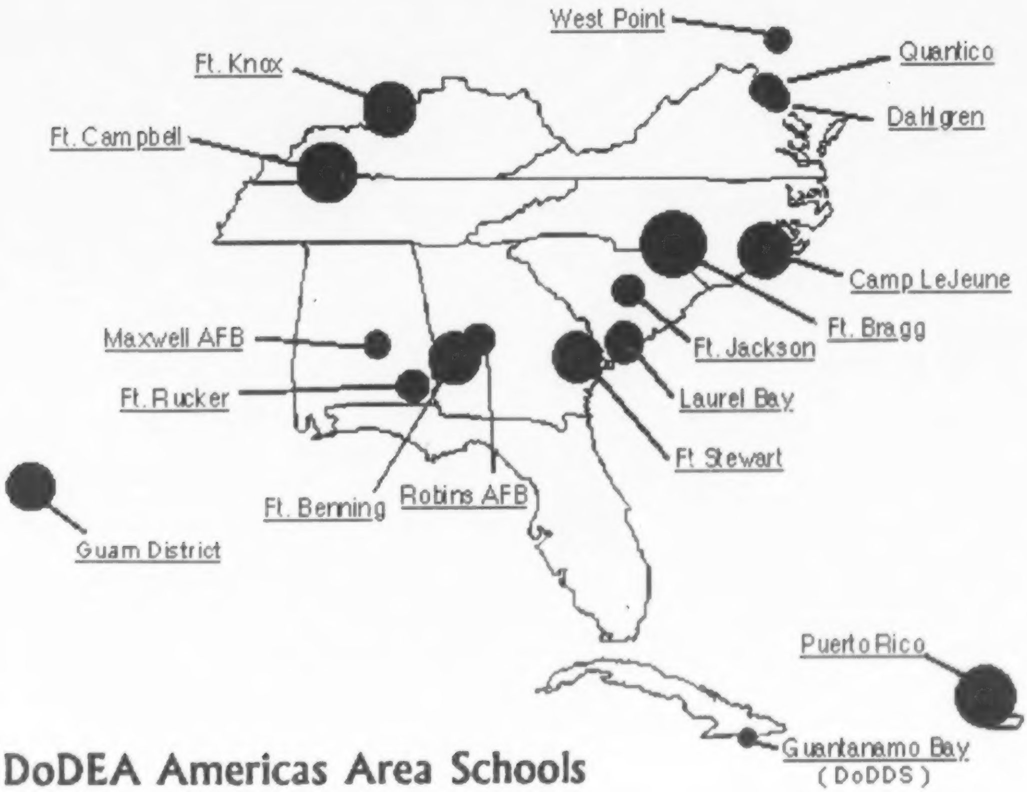
Steps	Bachelor's	BA15	BA30	Master's	MA15	MA30	EDS	Doctor's
0	29276	30306	31336	33499	35662	37825	40400	42975
1	30169	31199	32229	34392	36555	38718	41293	43868
2	31072	32102	33132	35295	37458	39621	42196	44771
3	31988	33018	34048	36211	38374	40537	43112	45687
4	32914	33944	34974	37137	39300	41463	44038	46613
5	33850	34880	35910	38073	40236	42399	44974	47549
6	34795	35825	36855	39018	41181	43344	45919	48494
7	35751	36781	37811	39974	42137	44300	46875	49450
8	36714	37744	38774	40937	43100	45263	47838	50413
9	37686	38716	39746	41909	44072	46235	48810	51385
10	38663	39693	40723	42886	45049	47212	49787	52362
11	39648	40678	41708	43871	46034	48197	50772	53347
12	40637	41667	42697	44860	47023	49186	51761	54336
13	41631	42661	43691	45854	48017	50180	52755	55330
14	42628	43658	44688	46851	49014	51177	53752	56327
15	43627	44657	45687	47850	50013	52176	54751	57326
16	44628	45658	46688	48851	51014	53177	55752	58327
17	45630	46660	47690	49853	52016	54179	56754	59329
18	46631	47661	48691	50854	53017	55180	57755	60330
19	47631	48661	49691	51854	54017	56180	58755	61330
20	48629	49659	50689	52852	55015	57178	59753	62328
21	49624	50654	51684	53847	56010	58173	60748	63323
22	50614	51644	52674	54837	57000	59163	61738	64313
23	51599	52629	53659	55822	57985	60148	62723	65298
24	52576	53606	54636	56799	58962	61125	63700	66275
25	53547	54577	55607	57770	59933	62096	64671	67246
26	54508	55538	56568	58731	60894	63057	65632	68207
27	55458	56488	57518	59681	61844	64007	66582	69157
28	56399	57429	58549	60622	62785	64948	67523	70098
29	57327	58357	59387	61550	63713	65876	68451	71026

Appendix C

STATE	Student Achievement (% scoring at or above "proficient")	
	8th grade NAEP reading (1998)	8th grade NAEP writing (1998)
Alabama	21	17
Alaska	N/A	N/A
Arizona	28	21
Arkansas	23	13
California	22	20
Colorado	30	27
Connecticut	42	44
Delaware	25	22
Florida	23	19
Georgia	25	23
Hawaii	19	15
Idaho	N/A	N/A
Illinois	N/A	N/A
Indiana	N/A	N/A
Iowa	N/A	N/A
Kansas	35	N/A
Kentucky	29	21
Louisiana	18	12
Maine	42	32
Maryland	31	23
Massachusetts	36	31
Michigan	N/A	N/A
Minnesota	37	25
Mississippi	19	11
Missouri	29	17
Montana	38	25
Nebraska	N/A	N/A
Nevada	24	17
New Hampshire	N/A	N/A
New Jersey	N/A	N/A
New Mexico	24	18
New York	34	21
North Carolina	31	27
North Dakota	N/A	N/A
Ohio	N/A	N/A
Oklahoma	29	25
Oregon	33	27
Pennsylvania	N/A	N/A
Rhode Island	30	25
South Carolina	22	15
South Dakota	N/A	N/A
Tennessee	26	24
Texas	28	31
Utah	31	21
Vermont	N/A	N/A
Virginia	33	27
Washington	32	25
West Virginia	27	18
Wisconsin	33	28
Wyoming	29	23
U.S.	**31**	**24**
DDESS	**37**	**38**
DODDS	**36**	**31**

Quality Counts Report 2000, Education Week

Appendix D


West Point
Quantico
Ft. Knox
Dahlgren
Ft. Campbell
Camp LeJeune
Ft. Bragg
Maxwell AFB
Ft. Jackson
Laurel Bay
Ft. Rucker
Ft Stewart
Ft. Benning
Robins AFB
Guam District
Puerto Rico
Guantanamo Bay
(DoDDS)

DoDEA Americas Area Schools

-Source:http://www.odedodea.edu/datacentral/americas.html

Appendix E

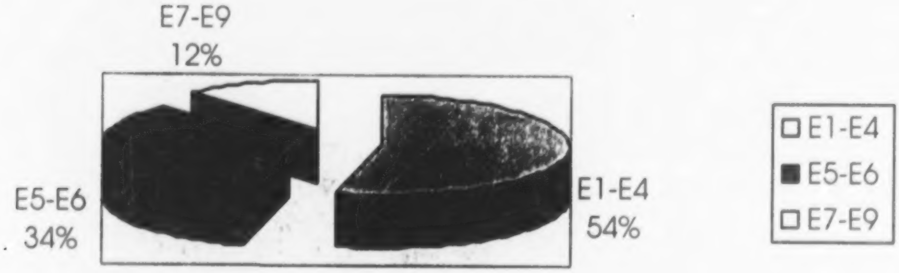
	% students in high schools with 900 or fewer students (1998)	% students in middle schools with 600 or fewer students (1998)	% students in elementary schools with 350 or fewer students (1998)
Alabama	50	43	18
Alaska	37	22	20
Arizona	18	22	8
Arkansas	76	58	29
California	11	12	6
Colorado	27	36	24
Connecticut	33	36	17
Delaware	18	19	7
Florida	6	4	2
Georgia	13	14	4
Hawaii	5	9	6
Idaho	47	34	27
Illinois	27	53	21
Indiana	41	41	21
Iowa	63	62	55
Kansas	53	61	50
Kentucky	42	42	24
Louisiana	32	44	15
Maine	69	71	56
Maryland	10	15	8
Massachusetts	38	35	27
Michigan	41	41	24
Minnesota	44	23	20
Mississippi	54	42	13
Missouri	49	46	28
Montana	57	77	60
Nebraska	57	44	57
Nevada	17	11	6
New Hampshire	46	46	31
New Jersey	27	42	20
New Mexico	27	36	21
New York	31	21	8
North Carolina	29	29	11
North Dakota	67	51	64
Ohio	44	51	25
Oklahoma	60	53	41
Oregon	32	46	28
Pennsylvania	38	27	19
Rhode Island	30	24	41
South Carolina	27	31	11
South Dakota	63	67	62
Tennessee	29	39	14
Texas	24	26	10
Utah	18	12	6
Vermont	65	93	55
Virginia	25	25	14
Washington	28	27	13
West Virginia	57	60	56
Wisconsin	43	44	32
Wyoming	58	53	71
U.S.	**31**	**31**	**17**

-Quality Counts Report 2000, Education Week

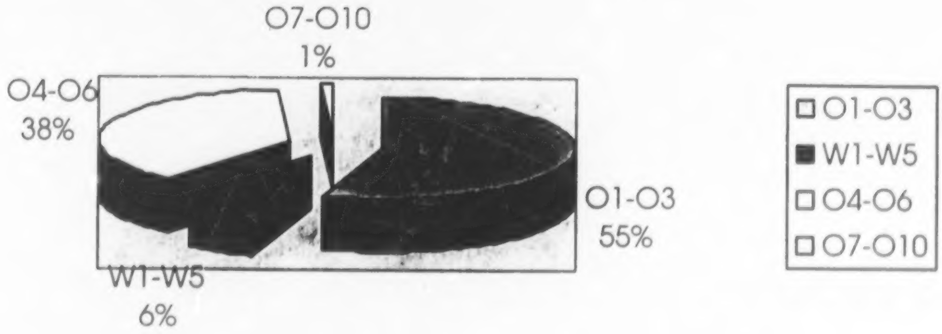
Appendix F

Active Duty Personnel by Pay Grade

Enlisted



Officers

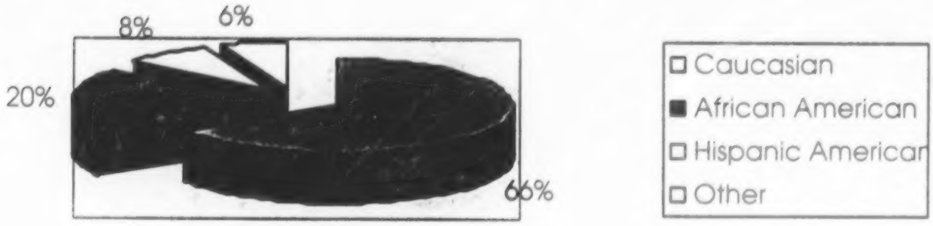


-1999 Profile of the Military Community, Military Family Resource Center

79

Appendix G

Minorities on Active Duty



Minorities By Branch of Service

Service Branch	**Officers**	**Enlisted**
Army	21.1%	44.5%
Navy	16.2%	38.3%
Air Force	13.7%	27.8%
Marine Corps	15.7%	34.0%
Total	**17.1%**	**37.2%**

-DMDC, Sept. 1999

Appendix H

Monthly Basic Pay Table (Effective January 1, 2001)								
	Years of Service							
Pay Grade	<2	2	3	4	6	8	10	12
Commissioned Officers								
O-10	8518.80	8818.50	8818.50	8818.50	8818.50	9156.90	9156.90	9664.30
O-9	7550.10	7747.80	7912.80	7912.80	7912.80	8114.10	8114.10	8451.60
O-8	6838.20	7062.30	7210.50	7252.20	7437.30	7747.80	7819.80	8114.10
O-7	5682.30	6068.40	6068.40	6112.50	6340.80	6514.50	6715.50	6915.90
O-6	4211.20	4626.60	4930.20	4930.20	4949.10	5160.90	5189.10	5189.10
O-5	3368.70	3954.90	4228.80	4280.40	4450.50	4450.50	4584.30	4831.80
O-4	2839.20	3457.20	3687.90	3739.50	3953.40	4127.70	4409.70	4629.30
O-3	2638.20	2991.00	3228.00	3489.30	3656.40	3839.70	3992.70	4189.80
O-2	2301.00	2620.80	3018.60	3120.30	3184.80	3184.80	3184.80	3184.80
O-1	1997.70	2079.00	2512.80	2512.80	2512.80	2512.80	2512.80	2512.80
Enlisted Members								
E-9	0.00	0.00	0.00	0.00	0.00	0.00	3126.90	3197.40
E-8	0.00	0.00	0.00	0.00	0.00	2622.00	2697.90	2768.40
E-7	1831.20	1999.20	2075.10	2149.80	2227.20	2303.10	2379.00	2454.90
E-6	1575.00	1740.30	1817.40	1891.80	1969.50	2046.00	2122.80	2196.90
E-5	1381.80	1549.20	1623.90	1701.00	1777.80	1855.80	1930.50	2007.90
E-4	1288.80	1423.80	1500.60	1576.20	1653.00	1653.00	1653.00	1653.00
E-3	1214.70	1307.10	1383.60	1385.40	1385.40	1385.40	1385.40	1385.40
E-2	1169.10	1169.10	1169.10	1169.10	1169.10	1169.10	1169.10	1169.10
E-1>4	1042.80	1042.80	1042.80	1042.80	1042.80	1042.80	1042.80	1042.80
E-1<4	964.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00

-ArmyTimes (January 15, 2001)

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http://www.odedodea.edu/csp (community strategic plan)

http://www.odedodea.edu

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